Regional Development Alliance, Inc.

East Idaho's Partner in Growth

Global Nuclear Energy Partnership (GNEP) Siting Study

Idaho National Laboratory

DE-FG07-07ID14797

Final Report

May 2007

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Global Nuclear Energy Partnership (GNEP) Siting Study

Location: Idaho National Laboratory

Final Report

Prepared by: Regional Development Alliance

Regional Development Alliance, Inc.
East Idaho's Partner in Growth

2300 North Yellowstone, Idaho Falls, Idaho 83401

May 2007

FOREWORD

This report documents the outcome of work performed under DOE grant DE-FG07-07ID14797 awarded to the Regional Development Alliance (RDA) of Idaho Falls, Idaho. The grant's project title as awarded to RDA is "Global Nuclear Energy Partnership (GNEP) Siting Studies." It is one of 11 grants awarded in the United States to perform a detailed siting study resulting in a Detailed Site Report that provides the information for hosting the Nuclear Fuel Recycling Center (NFRC) and the Advanced Recycling Reactor (ARR) facilities. (NFRC is also referred to as the Consolidated Fuel Treatment Center [CFTC], and ARR is also referred to as the Advanced Burner Reactor [ABR] in some early documents and the RDA grant.) The specific RDA site studied is located on the Idaho National Laboratory (INL) site. The work was performed for the RDA from February 1, 2007 to May 1, 2007 by a team consisting of AREVA, Battelle, Battelle Energy Alliance (BEA), and Washington Group International (Washington Group). Washington Group acted as project manager. The firms Bisconti Research and EviroIssues were subcontracted by Washington Group to complete community outreach activities. BEA is the consortium managing INL operations and was funded directly by DOE for its participation in the study. The study focuses on regulatory permitting and community outreach. Because the INL site had previously been characterized, the focus of regulatory permitting was to assess applicable regulations and determine regulatory or legislative factors that affect siting. The community outreach program involved three phases of community involvement to inform state and local stakeholders of the purpose of the GNEP siting studies and obtain their input on issues related to potential GNEP facility development in eastern and southern Idaho and on information needed to address public questions and concerns.

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REVISION STATUS

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EXECUTIVE SUMMARY

This report documents the outcome of work performed under DOE grant DE-FG07-07ID14797 awarded to the Regional Development Alliance (RDA) of Idaho Falls, Idaho. The grant's project title as awarded to RDA is "Global Nuclear Energy Partnership (GNEP) Siting Studies." It is one of 11 grants awarded in the United States to perform a detailed siting study resulting in a detailed site report that provides the information for hosting the Nuclear Fuel Recycling Center (NFRC) and the Advanced Recycling Reactor (ARR) facilities. (NFRC is also referred to as the Consolidated Fuel Treatment Center [CFTC], and ARR is also referred to as the Advanced Burner Reactor [ABR] in some early documents and the RDA grant.) The specific RDA site studied is located on the Idaho National Laboratory (INL) site. The work was performed for RDA from February 1, 2007 to May 1, 2007 by a team consisting of AREVA, Battelle, Battelle Energy Alliance (BEA), and Washington Group International, with the latter acting as project manager. BEA is the consortium managing INL operations and was funded directly by DOE for its participation in the study. The study focuses on regulatory permitting and community outreach.

Regulatory Permitting

Design details of the GNEP facilities have not been finalized and are expected to change as GNEP moves forward. Therefore, RDA has made realistic, but conservative, assumptions about permits and consultations with regulators that will be needed to construct the proposed NFRC and the ARR at the INL site.

The RDA approach considered the types of facilities proposed for GNEP and, as a result, identified which permits would typically be required to construct and operate such facilities in Idaho. With that basis, current regulators, regulatory requirements, and permitting time frames were identified, reviewed, and summarized. Available site-specific information was also reviewed for adequacy. In addition, agreements that have the potential to impact GNEP facility construction and operation were identified and discussed.

As a result of the analysis, RDA concluded that the permits likely to be required for the proposed GNEP facilities are typical of permits that have been obtained for existing and past facilities at INL and issuance of the required permits would not be considered unusual or extraordinary by the regulators.

Most importantly, there were no regulatory prohibitions that would prevent siting of the GNEP facilities at INL.

High-quality, site-specific environmental monitoring information is available to satisfy most permit application needs. In cases where more current information may be needed by the regulator, the project schedule should allow for acquisition of the information without any adverse impact to that schedule.

The Idaho Settlement Agreement is not viewed by the RDA team as an impediment to siting and operation of the GNEP facilities in Idaho. Based on informal discussions, it is believed that the GNEP facilities could be constructed and operated at INL in keeping with the spirit and intent of the Settlement Agreement, although the State of Idaho may wish to negotiate a supplemental or additional agreement governing the management and disposition of wastes resulting from operation of the facilities.

Community Outreach Program

RDA's community outreach included (1) interviews and workshops with community leaders, and (2) focus group sessions with the general public.

The purpose of the community leaders' interviews was to understand issues and concerns about siting GNEP in Idaho and to learn what additional information would be expected to make an informed decision about the project. The RDA team arranged interviews with 46 leaders from across the eastern and southern regions of the state (and two from northwestern Wyoming) during February through April. Interviewees fell into one of the following categories: local elected officials; environmental/conservation; federal/state elected officials; education; business leaders; media; economic development; and tribal government. GNEP briefing materials were sent to them in advance. The interviews were very successful and a rich set of themes emerged. Generally, there is great support for seeing GNEP facilities located at the INL site. As expected, however, there were a few individuals who had concerns and or questions about the plans. All of the issues, concerns, and questions raised during the interviews were summarized in a "themes report" that was circulated to all of the interviewees for their review.

The same community leaders interviewed were invited to workshops to discuss and comment on the themes report and to ask questions of a technical expert. These workshops were held in Idaho Falls, Twin Falls, and Boise on April 3, 4, and 5, 2007, respectively.

The major themes heard from stakeholders include:

- Significant support exists—most strongly in the Idaho Falls area
- A few interviewees oppose any GNEP facilities
- GNEP is seen by many as an important solution to solve the energy crisis/fight climate change
- Economic benefits are of interest
- Consistency with INL mission is important
- Interest exists in reducing spent fuel stockpiles
- Questions about residual waste products are significant
- The Idaho Settlement Agreement warrants discussion
- Transportation of spent fuel raises questions
- Facility details need to be further defined
- People care about safety and nonproliferation
- Regulatory hurdles remain to be addressed
- Environmental impacts need to be considered
- Funding by and trust of the federal players are both questioned

- The international scope of GNEP is not yet well defined
- Timing is off—some see the need to accelerate GNEP, while others want slower movement
- Utilities need to strongly participate
- Better messaging to the public is needed

Additional details on the above themes are available in Section 3 of this report.

The conclusions of the community outreach with stakeholders, including both community leaders and the general public are: (1) The vast majority supported GNEP facilities at INL; (2) A few leaders (long-term critics were sought out for inclusion in the community leader interviews) and a few persons in the focus groups opposed GNEP facilities in Idaho due to firm views about nuclear energy activities; and (3) Important questions need to be addressed. The majority support GNEP because of these features:

- GNEP appeals as a way to solve global nuclear energy problems, promote international collaboration, reduce the risk of misuse of nuclear materials worldwide, and recycle/reprocess used nuclear fuel to make more electricity and reduce waste.
- INL is considered a preferred site because of consistency between GNEP and INL missions, existing INL and local university expertise and facilities, and the remoteness of the location.
- The facilities could enhance the local/state economy and educational systems.

Some important questions that surfaced include:

- How is GNEP organized and managed?
- What other countries are involved or are envisioned to be involved in GNEP?
- What is the GNEP timetable for decisions concerning site selection and concerning designing, building, and operating the facilities?
- What are the characteristics and risks of used nuclear fuel and how do the residual waste products from GNEP compare to those from the current system?
- How is the used fuel to be stored and transported?
- How would the waste from GNEP be managed and under what timetable?
- How would environmental impacts be avoided and mitigated?

Especially strong support was found in Idaho Falls. The Idaho Falls public is very familiar with INL and very enthusiastic about having the GNEP facilities located there. Across the region, recycling used nuclear fuel to make electricity and reduce waste appeals to virtually everyone.

1.0 Introduction

1.0 INTRODUCTION

This document reports the methods, results, and conclusions of the GNEP siting study performed by the RDA. The site studied (Figure 1-1) is located on the INL grounds at a site previously evaluated for facilities of a similar nature to GNEP's NFRC and ARR. Regulatory permitting and community outreach were the focus of the work. The primary emphasis of regulatory permitting was to determine the status of existing or planned permits or regulations as they might impact the ability to site GNEP facilities. Detailed development of data was not required since the site has previously been well characterized. In community outreach, the emphasis was on providing information to community leaders and the general public about GNEP and soliciting their opinion.

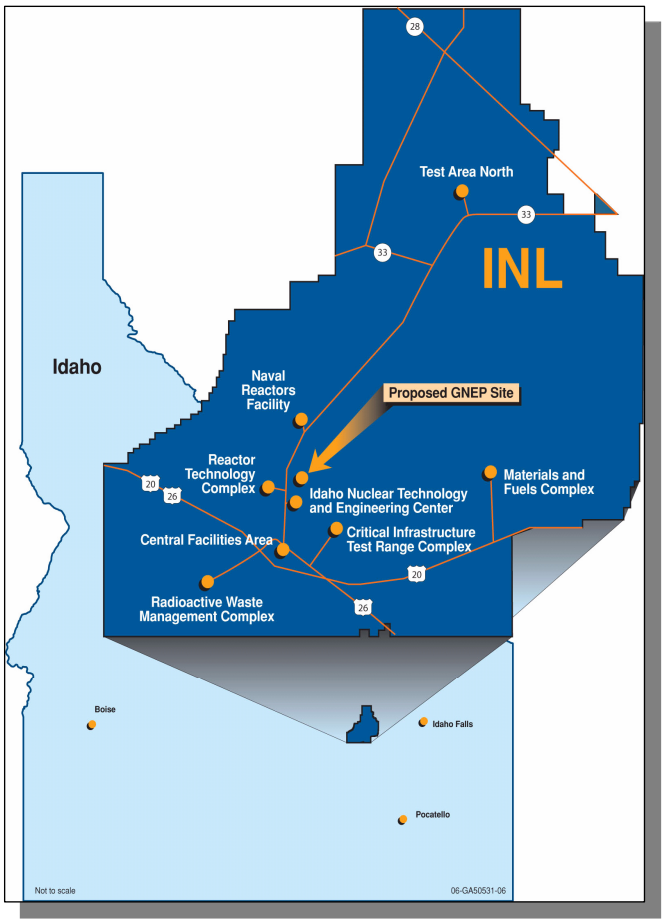

Figure 1-1 RDA Proposed INL Site

1.1 Background: GNEP History

GNEP is a comprehensive strategy to increase U.S. and global energy security, reduce the risk of nuclear proliferation, encourage clean development around the world, and improve the environment. The domestic part of the GNEP program consists of three proposed facilities:

1. A Nuclear Fuel Recycling Center (NFRC) – to separate the usable components contained in spent fuel from its waste products as well as fabricate actinide based fuel for the advanced recycling reactor
2. An Advanced Recycling Reactor (ARR) – to burn the actinide based fuel to transform the actinides in a way that makes them easier to store as waste and produces electricity
3. An Advanced Fuel Cycle Research Facility (AFCRF) - to provide an R&D center of excellence for developing transmutation fuels and improving fuel cycle technology

The GNEP siting studies involve only the first two facilities, the NFRC and ARR.

The NFRC is an industrial facility that will treat and separate used fuel constituents into reusable and waste components. The NFRC will support two of the three key components of a used fuel recycling program:

1. Separation of light-water reactor spent nuclear fuel and fast reactor spent nuclear fuel into their reusable and non-reusable constituents
2. After completion of transmutation fuel development at the advanced fuel cycle research facility, the NFRC will fabricate such fuel for use in the destruction of transuranic elements in a fast reactor (the advanced recycling reactor).

The ARR is a fast neutron spectrum reactor that will be capable of converting long-lived radioactive elements (e.g., plutonium and other transuranics) into shorter-lived radioactive elements while producing electricity.

Facilities could be government or commercially owned and could be regulated by either DOE or the Nuclear Regulatory Commission (NRC).

Figure 1-2 provides a simplified typical diagram of the potential material flows into and potential releases from the facilities. This flow diagram was developed by the AREVA/Battelle/ Washington Group alliance working on five GNEP siting studies and is provided as a graphical representation of what the GNEP process might look like.

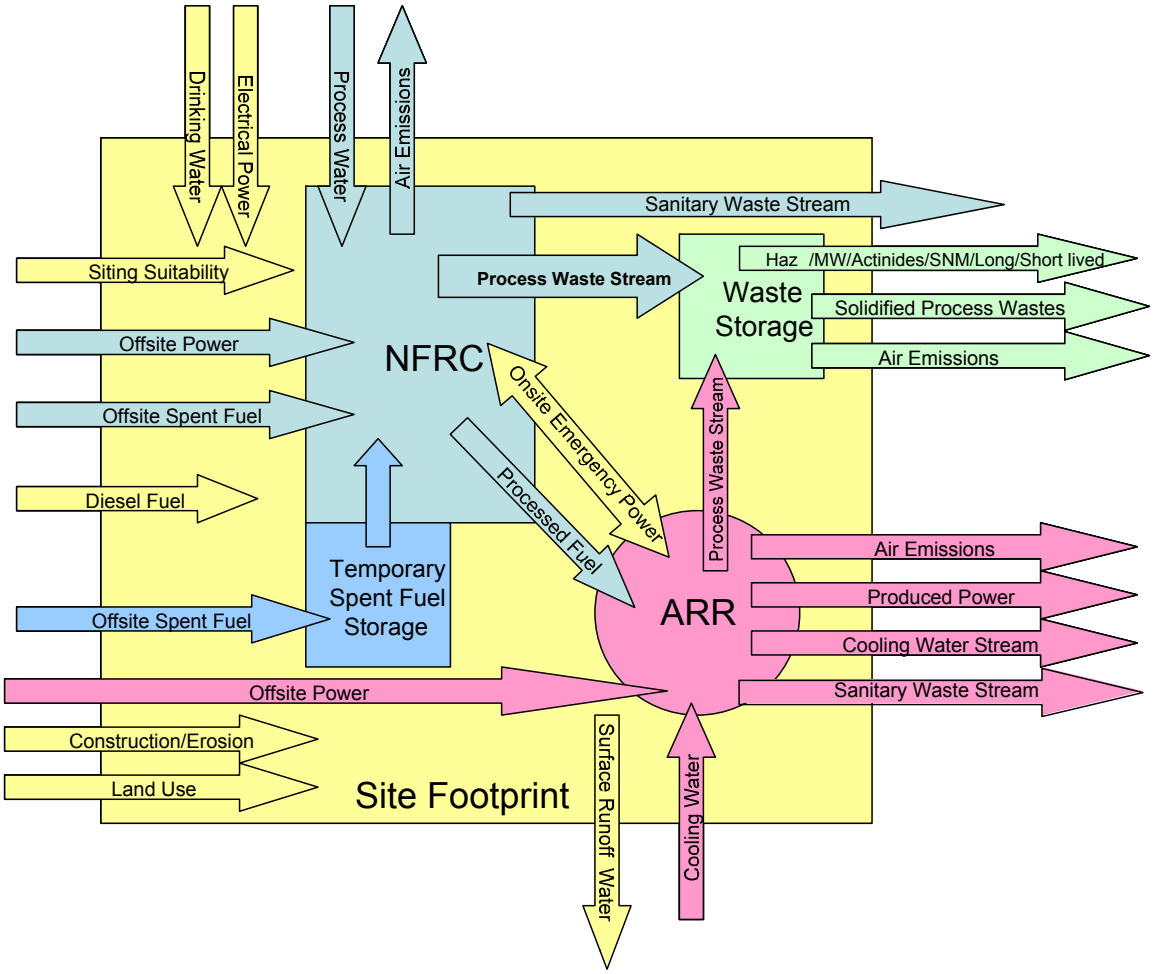

Figure 1-2 NFRC and ARR Typical Block Flow Diagram

The RDA received one of 11 awards in the United States to evaluate a potential site for locating the NFRC and the ARR. RDA's site is a location within the existing INL footprint. RDA was awarded the work in January 2007 and the work was performed from February 1, 2007 to May 1, 2007. The approximate $600,000 award amount was provided in two parts. One part, about half, went directly to the Battelle Energy Alliance in charge of running INL. The other half went to RDA, which made a sub-award to Washington Group as project manager for the AREVA/Battelle/ Washington Group team. The work asked of RDA was primarily in two areas—evaluate regulatory permitting, and conduct a community outreach program. This work is intended to feed into a Programmatic Environmental Impact Statement (PEIS) and to provide information to help DOE decide the path forward for GNEP including determining the most suitable site for the GNEP facilities. Figure 1-3 is a timeline of the overall GNEP program and it shows where this RDA siting study fits into the Department of Energy's overall GNEP program.

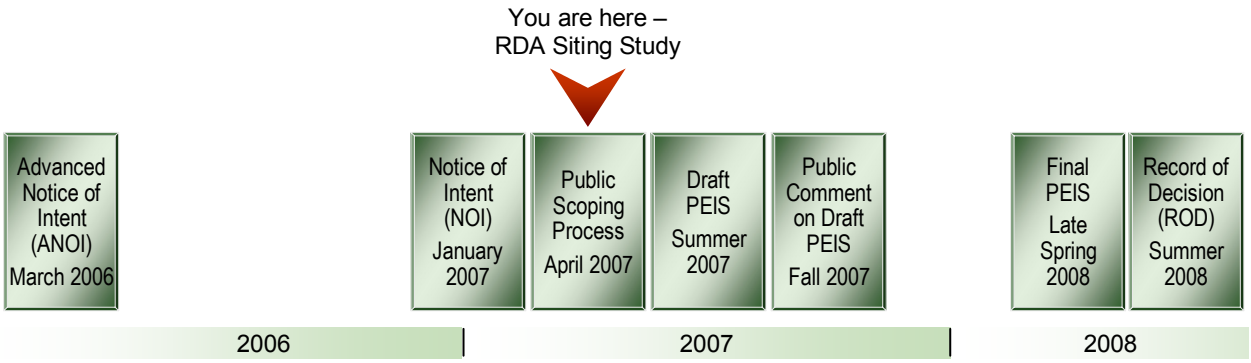

Figure 1-3 GNEP Timeline

1.2 Regulatory Permitting Introduction

RDA is proposing to DOE a site on INL to construct and operate GNEP facilities. The design details of the facilities have not been finalized and are expected to change as GNEP moves forward. RDA has made realistic, but conservative, assumptions about permits and consultations with regulators that will be needed to construct the proposed NFRC and ARR at the INL site. As an example, RDA has conservatively assumed that the CTFC will require a Resource Conservation and Recovery Act (RCRA) permit, while reasonably assuming that the ARR will not.

INL has existing infrastructure, such as an industrial waste landfill and an asbestos landfill, which could be advantageously used to provide support to the proposed GNEP facilities. Where existing infrastructure could be used, it will be identified in this document; however, in conformance with the contract, we will also identify the regulatory requirements for a new landfill.

1.3 Community Outreach Program Introduction

Eastern Idaho has an excellent legacy of supporting national-priority research and operations, and today's INL mission remains focused on supporting national and international nuclear research, development, and demonstration activities. In parallel, the Idaho Cleanup Project based at the INL site has focused on and implemented environmental management and

remediation priorities, resulting in significant acceleration of cleanup and risk-reduction initiatives. Statewide, citizens and local governments of Idaho take a strong interest in both categories of INL-centered activities, integrated with principles of economic and environmental stewardship. The RDA outreach activities seek the ideas and reactions of a broad range of Idahoans, and to consider Idahoans values and preferences.

The January 30, 2007 DOE letter to the RDA team directed the performing entities to "inform the state and local stakeholders of the purpose of the GNEP siting studies and obtain their opinions." The RDA team structured a methodology for informing and consulting with stakeholders statewide that focused on identifying a full range of community interests, questions, and concerns about locating GNEP facilities in eastern and southern Idaho. The methodology sought to reach people and organizations at all levels, from the general public to community leadership, and included business, education, local government, environmental, and conservation organizations. In addition, the Shoshone-Bannock tribes were contacted. The outreach program used a variety of techniques to inform and engage stakeholders, and emphasized:

- Providing basic information about potential GNEP facilities, including purpose and facility needs, and seeking input on what additional information would be needed to fully address the questions and concerns of all stakeholders.
- Providing opportunities for stakeholders to honestly and completely provide their input on the feasibility of GNEP development at INL through facilitating an objective and balanced dialogue that would inform GNEP consideration with in-depth analysis.
- Understanding issues raised, in order to focus further work on resolving those issues, addressing concerns, and assessing the level of support for GNEP in Idaho.

The methodology, described in detail in Section 3 of this report, included three key components:

- Developing basic Idaho-specific information materials to start discussions and serve as the basis for identifying future information needs.
- Identifying and reaching out to the spectrum of community leadership and relevant tribes through in-depth, one-on-one interviews, seeking their perspectives on issues and information needs.
- Designing and conducting community outreach activities in three locations throughout the state that:

  (a) Brought together those community leaders interviewed to:

  - identify any further issues.
  - fully understand the ideas and concerns raised in the interviews.
  - find out what additional information will be needed for the public to understand and potentially accept GNEP facilities in eastern Idaho.

  (b) Brought together a cross-section of the general public in six focus groups – two each in Idaho Falls, Twin Falls, and Boise – to hear the public's views about GNEP as a program and about locating GNEP facilities at INL.

Based on these activities, carried out from February through April 2007, the team synthesized the thematic information and recommendations for further activities, which are provided in Sections 3.3 – 3.5 of this report.

1.4 Scope

This work evaluated siting the GNEP facilities on the INL site. Regulatory permitting was evaluated and a community outreach activity was performed.

1.5 Purpose

The overall purpose of this work was to provide initial regulatory permitting and community outreach findings to evaluate the suitability of the chosen INL site for the GNEP facilities. The purpose of the regulatory permitting work was to evaluate existing or future regulatory or permitting requirements that might have an impact on siting the GNEP facilities. The current and future regulations and permits were determined, any possible gaps or issues were identified, and the gaps and issues were examined and discussed. The community outreach program purpose was to educate the local and surrounding community on the available information regarding GNEP and document community ideas, concerns, and opinions on siting the GNEP facilities at INL.

1.6 Methodology for GNEP

Regulatory Permitting and Licensing

To determine the permits required for GNEP facilities, RDA looked at the typical permits that would be required, and which have been required, by similar facilities in Idaho. The need for permits in Idaho is based largely on three factors: (1) resources, such as water, which will be utilized by the facilities; (2) the emissions and pollutants generated by the facilities; and (3) wastes, such as industrial waste in a landfill, which will be generated, and which will require effective management.

Based on the expected permits, a summary of the required permits is provided, the regulator and relevant regulations are identified, and a conservative time frame for permitting activities, which relates the activities to the project schedule, is presented. To the extent that certain typical permits are not required due to unique circumstances in Idaho, those permits are also identified along with an explanation of why they are not required.

Outreach Activities

The outreach program developed and disseminated basic information about GNEP, including the need for the facilities and their basic operations, elements of the siting studies, the DOE 13-site evaluation process and NEPA evaluation, and other related topics. The program established categories including minorities, tribal groups, business leaders, educators, etc., to include a broad public spectrum. Interviews were set up and conducted with individuals from these categories. The Outreach team invited interviewees to workshops to comment on the findings of the interviews and discuss their views further. The workshops were held in Idaho Falls, Twin Falls, and Boise on April 3, 4, and 5, 2007. The program concurrently conducted focus group sessions to hear the views of the general public about GNEP and about having GNEP facilities at INL.

The focus groups were accomplished by randomly sampling the population throughout eastern and southern Idaho and obtaining reactions of representative samples of citizens to GNEP materials and concepts, their questions and issues, and their opinions, through a structured set of focus groups sessions.

After the interviews and meetings, the outreach program analyzed the findings of all the community outreach activities to delineate the reasons for views about GNEP facilities at INL and main questions and concerns.

2.0 GNEP Regulatory Permitting Requirements

2.0 GNEP REGULATORY PERMITTING REQUIREMENTS

2.1 Introduction

RDA is proposing to DOE a site on INL to construct and operate GNEP facilities. The design details of the facilities have not been finalized and are expected to change as GNEP moves forward. RDA has made realistic, but conservative, assumptions about permits and consultations with regulators that will be needed to construct the proposed NFRC and ARR at the INL site. As an example, RDA has conservatively assumed that the NFRC will require a RCRA permit, while reasonably assuming that the ARR will not.

INL has existing infrastructure, such as an industrial waste landfill and an asbestos landfill, which could be advantageously used to provide support to the proposed GNEP facilities. Where existing infrastructure could be used, it will be identified in this document; however, in conformance with the contract, we will also identify the regulatory requirements for a new landfill if one is required.

This section lists the major laws and regulations that the two major facilities of the GNEP will be required to meet in order for the facilities to be properly licensed and permitted. The two major facilities are the NFRC and the ARR. This section also identifies several other laws and regulations that apply to supporting activities such as transportation and packaging.

It should be noted that there are numerous Federal, State, and local laws and regulations, for which permits are not required, that will be applicable to the GNEP facilities. There are some regulatory differences that will depend on such variables as whether the facilities are DOE owned and regulated, DOE owned and NRC regulated, or commercially owned and NRC regulated.

2.2 Enabling Assumptions

There are a set of key assumptions that drive the applicability and determine the specific requirements of the various laws and regulations. These key assumptions for the two major facilities, as well as assumptions about the common infrastructure, are listed below.

2.2.1 Nuclear Fuel Recycling Center

(a) NFRC will generate, treat, and store RCRA hazardous waste.
(b) NFRC will be constructed and operated contemporaneously with ARR.
(c) NFRC will be licensed by the Nuclear Regulatory Commission (NRC).

2.2.2 Advanced Recycling Reactor

(a) ARR will be constructed and operated contemporaneously with NFRC.
(b) ARR will be a liquid metal fast reactor.
(c) ARR will be $\leq$ 4000 MWth.
(d) ARR will be licensed by the NRC.
(e) ARR will pursue the Combined Operating License Process.

(f) ARR will be designed for at least five years of on-site storage.

(g) ARR will be covered by Price-Anderson or equivalent.

(h) ARR will be operational in 10 years and operate for 40 years.

(i) ARR will use natural draft cooling towers.

2.2.3 Common Infrastructure

Existing INL infrastructure will be identified where available; however, required permits for new infrastructure will be identified

(a) Central Facility Area (CFA) industrial landfill and asbestos landfill could be used rather than new landfills

(b) INL electrical distribution system will be used

(c) Facilities will share common utilities
  (i) Potable water supply
  (ii) Process water supply
  (iii) Sanitary Waste Water Treatment System

(d) Facilities will share common support infrastructure
  (i) Administrative office space
  (ii) Warehousing and inventory management
  (iii) Non-specialized support maintenance

(e) Access to the site will include truck and rail

(f) There will be available waste disposal facilities for all classes of radioactive waste: low-level, high-level, Greater than Class C (GTCC), Transuranic (TRU), and mixed.

(g) There will be available and certified casks and containers for all classes of radioactive waste: low-level, high-level, GTCC, TRU, and mixed.

2.3 Applicable Licensing Regulations

2.3.1 Nuclear Fuel Recycling Center

The NFRC, a fuel cycle material facility, is assumed to submit an application to NRC. This application will demonstrate how the facility will be operated to ensure adequate safety and safeguards in accordance with applicable NRC licensing regulations. As the NRC is currently evaluating potential regulatory framework options for GNEP fuel cycle facilities, for purposes of this study, existing NRC regulations found in 10CFR Parts 30, 40, 70, 73 and 74 are assumed, as is compliance with parts of 10 CFR 50 and a Fundamental Nuclear Control Plan (FNCP). The applicability of these requirements is discussed separately in the following subsections.

Fuel cycle material facilities licenses are typically issued for 10 years. The GNEP will be seeking a 40-year license.

(a) 10 CFR 30 Rules of General Applicability to Domestic Licensing of Byproduct Material

The NFRC will be handling byproduct material and as such will need to apply for a license in accordance with 10 CFR 30.

(b) 10 CFR 40 Domestic Licensing of Source Material

The NFRC will be handling source material and as such will need to be licensed in accordance with 10 CFR 40. This license will allow the NFRC to receive title to, receive, possess, use, transfer, or deliver source and byproduct materials.

(c) 10 CFR 50 Domestic Licensing of Production and Utilization Facilities

Appendix F Policy Relating to the Siting of Fuel Reprocessing Plants and Related Waste Management Facilities

The NFRC will be designed to facilitate decontamination and removal of all significant radioactive wastes at the time the facility is permanently decommissioned. Criteria for the extent of decontamination to be required upon decommissioning and license termination will be developed in consultation with competent groups.

(d) 10 CFR 70 Domestic Licensing of Special Nuclear Material

The NFRC will be handling special nuclear material and as such will need to be licensed in accordance with 10 CFR 70. This license will allow the NFRC to receive title to, own, acquire, deliver, receive, possess, use, and transfer special nuclear material.

(e) 10 CFR 73 Physical Protection of Plants and Materials

The NFRC will establish and maintain a physical protection system to protect the special nuclear material in accordance with 10 CFR 73. Design basis threats will be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material.

(f) 10 CFR 74 Material Control and Accounting of Special Nuclear Material

The NFRC will establish material controls and accounting of special nuclear material in accordance with 10 CFR 74. The NFRC will also comply with the documentation and reporting requirements of 10 CFR 74.

(g) Fundamental Nuclear Material Control (FNMC) Plan

The NFRC will prepare a FNMC that describes the procedures and the process of how the NFRC will control and account for the special nuclear material.

2.3.2 Advanced Recycling Reactor

(a) 10 CFR 50 Domestic Licensing of Production and Utilization Facilities

10 CFR 50 is the traditionally used regulation that provides for the licensing of production and utilization facilities. This regulation requires the applicant to submit two Environmental Reports (Ers). The first is for the "Construction Permit (CP) Stage," which is submitted with the construction permit application. The second, "Operating License Stage," is submitted later with the operating license application. The CP is a type of license issued by the NRC that authorizes construction of a nuclear power facility of a specific design at a

specific location. It is a major federal action. The action requires the preparation of a full and complete environmental impact statement (EIS) considering the impacts of construction, operation and decommissioning, and the benefits and alternatives assessments. There is a mandatory hearing for a CP.

Operating license (OL) is a type of license issued by the NRC that authorizes a CP holder to operate the nuclear power facility that was constructed in conformity with the CP and will operate in conformity with the OL. It is a major federal action, but it is a connected action. The action requires the preparation of a supplemental EIS. By NRC rules, certain aspects need not be reconsidered, such as the alternative site evaluation and the "need for power" assessment; to the degree that new and significant information exists on previously construction resolved issues, then such issues may be heard again. There is no mandatory hearing for an OL.

(b) 10 CFR 52 Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants

Early Site Permit (ESP) is a new alternative licensing process for NRC approval of a site for one or more nuclear power facilities. Certain siting issues are resolved, but it does not authorize construction of a nuclear power facility. It is a major federal action. The action requires the preparation of a full and complete EIS, considering the impacts of construction, operation, and decommissioning, but it does not require the benefits assessment; alternative site assessment is required. There is a mandatory hearing for an ESP.

Design Certification (DC) is an approval of a design sufficiently detailed and complete that can be referenced repeatedly without reopening or repeating the review. It is not a major federal action. The NRC determined that it was prudent to prepare an environmental assessment to consider severe accident mitigation design alternatives (SAMDAs) at the time that SAMDAs could be implemented effectively. The design is certified in an NRC rule.

Combined Construction Permit and Operating License with Conditions (COL) is a type of license issued by the NRC that authorizes the construction and operation of a nuclear power facility. The COL application may reference an ESP or DC, or both, or neither. It is a major federal action, but it is not a connected action, i.e., the NRC rules establish a relationship between an ESP and COL that permits tiering and referencing. The action requires the preparation of an EIS; however, if the COL application references an ESP or a DC, then certain issues are treated as resolved in the absence of new and significant information. There is a mandatory hearing for a COL.

(c) 10 CFR 100 Reactor Site Criteria

Subpart B – Evaluation Factors for Stationary Power Reactor Site Applications On or After January 10, 1997

2.3.3 Supporting Activities

(a) National Environmental Policy Act (NEPA) – 10 CFR 51 Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions

As the GNEP is a major federal action, a Programmatic Environmental Impact Statement as well as a Site Specific Environmental Impact Statement will be prepared.

(b) Storage – 10 CFR 72 Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related GTCC Waste

Because there will be a need for temporary storage of both spent nuclear fuel and high-level radioactive waste, the GNEP will be licensed in accordance with 10 CFR 72. This license will allow DOE to receive, transfer, and possess power reactor spent fuel, power reactor-related GTCC waste, and other radioactive materials at a temporary facility. As needed, the GNEP will fulfill the requirements of 10 CFR 72 for obtaining Certificates of Compliance for spent fuel storage cask designs.

(c) Transportation and Packaging – 10 CFR 71, 49 CFR 171. et al.

The GNEP will be involved with the packaging and transport of spent nuclear fuel and high-level radioactive waste and, therefore, will need to comply with 10 CFR 71 which defines the DOT requirements for packaging and transporting spent nuclear fuel and high-level radioactive waste.

The GNEP will also need to comply with select parts of the suite of DOT regulations 49 CFR 171-179 (DOT) Hazardous Materials Regulations, particularly those sections addressing the transportation of radioactive materials.

(d) LLW Disposal – 10 CFR 61 Licensing Requirements for Land Disposal of Radioactive Waste

If required for the disposal of LLW radioactive waste, the GNEP will apply for a license in accordance with 10 CFR 61. This will allow the GNEP to operate a land disposal facility for disposal of low-level radioactive waste.

(e) Export and Import – 10 CFR 110 Export and Import of Nuclear Equipment and Material

The GNEP will be involved with the possible export and import of special nuclear material and, therefore, will need to be licensed in accordance with 10 CFR 110.

2.4 Applicable Permitting Regulations

2.4.1 Preoperational Environmental Monitoring Plan

Applicable to: Facility site as a whole (NFRC, ARR, Common Infrastructure)
Responsible Agency: DOE
Regulatory Reference: DOE Order 450.1

DOE Order 450.1 requires the contractor to conduct environmental monitoring, as appropriate, to support the site's Integrated Safety Management System; detect, characterize, and respond to releases from DOE activities; assess impacts; estimate dispersal patterns in the environment; characterize the pathways of exposure to members of the public; characterize the exposures and doses to individuals and the population; and to evaluate the potential impacts to the biota in the vicinity of the DOE activity.

2.4.2 Permit to Construct an Air Emissions Source

This permit is included in the event that a Permit to Construct an Air Emissions Source (commonly known as a PTC) is determined to be necessary based on the design of the NFRC.

Applicable to: NFRC
Regulatory Agency: IDEQ, except for radionuclide emissions, which are the responsibility of EPA
Regulatory Reference: Idaho Administrative Procedures Act (IDAPA) 58.01.01
40 CFR 61, Appendix H for DOE facilities

Note: A PTC for radiological emissions is not required for a facility regulated by the NRC. Radiological emissions are addressed in the NRC license for the facility.

The State of Idaho has been delegated authority from the EPA for the regulation of air quality in Idaho, with the exception of NESHAPs Subpart H radionuclide emissions from DOE facilities. Construction and operation of the NFRC would require a PTC. The Idaho PTC process is essentially an all-inclusive process that encompasses regulated air pollutants, radionuclides, and toxic air pollutants (TAPs).

Regulated Air Pollutants – A PTC is required for a new or modified source that has the potential to emit 100 tons or more per year of any regulated air pollutant or would cause an increase in the emissions of a major facility that equals or exceeds the significant emissions as defined in IDAPA 58.01.01.006. A PTC also includes the prevention of significant deterioration (PSD) requirements for new major facilities or major modifications in attainment or unclassified areas. This PTC would be administered by the State of Idaho.

Toxic Air Pollutants – Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments must also be demonstrated as part of preconstruction compliance.

Radionuclides – A PTC is required for a source with radionuclide emissions that would cause any member of the public to receive an annual effective dose equivalent of at least

one tenth (0.1) mrem per year as determined in accordance with 40 CFR Part 61, Appendix D methods. This PTC would be administered by EPA.

40 CFR 61, Subpart H contains the EPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) for radionuclide emissions from DOE facilities. 40 CFR 61.92 has established a standard that specifies "Emissions of radionuclides to the ambient air from DOE facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent (EDE) of 10 mrem/yr." For INL, the 10 mrem/yr standard applies to the combined dose from all radionuclide sources located at INL. Subpart H further specifies that all release points with the potential to discharge unabated radionuclides into the air in quantities that could cause an EDE in excess of 1% of the standard (0.1 mrem/yr) be continuously monitored in accordance with 40 CFR 61.93(b). For those release points that have the potential to discharge unabated radionuclides into the air in quantities that would cause an EDE less than 0.1 mrem/yr, periodic confirmatory measurement (PCM) is required. An application for approval must be submitted to EPA for any new construction of or modification within an existing facility if the effective dose equivalent caused by all emissions from the new construction or modification is greater 0.1 mrem/yr.

IDEQ approval of a PTC is required prior to start of facility construction. IDEQ has 30 days after submittal of the application to determine completeness. If the application is determined to be complete, IDEQ typically takes from eight months to one year to approve the permit, although there is no statutory time frame for doing so.

The applicant may request that any operating requirements or conditions identified in the PTC be rolled into the Title V Air Operating Permit as an administrative amendment.

2.4.3 Title V (Tier I) Air Operating Permit

Applicable to: NFRC, ARR, Common Infrastructure
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.01.300-399

INL has an existing Title V Air Operating Permit, which will require amendment to incorporate all federal and state requirements for the NFRC if an air emissions source is part of the design of the NFRC. The Title V Air Operating Permit incorporates all enforceable air quality requirements into a State approved and administered permit.

The State of Idaho has taken the position that all activities within the boundary of the INL site should be covered by a single Title V Air Operating Permit, irrespective of ownership of the various facilities.

The Title V permit must be amended to incorporate requirements for the new facility within one year of the start of operation of that facility. (See Section 2.4.2 – The amendment of the Title V permit may be requested as part of the PTC application process.)

2.4.4 Construction Stormwater Permit

Not Applicable

The proposed GNEP facilities site is not located in a floodplain and has been determined to not be subject to the National Pollutant Discharge elimination System (NPDES) stormwater requirements.

2.4.5 Stormwater Notice of Intent

Not Applicable

The proposed GNEP facilities site is not located in a floodplain and has been determined to not be subject to the NPDES stormwater requirements.

2.4.6 Stormwater Pollution Prevention Plan

Not Applicable

The proposed GNEP facilities site is not located in a floodplain and has been determined to not be subject to the NPDES stormwater requirements. Consequently, a stormwater Pollution Prevention Plan is not required.

2.4.7 Industrial Stormwater General Permit for Operations

Not applicable

Based on an August 2003 site visit by EPA and documented in an October 27, 2003 letter from EPA to the DOE Idaho Operations Office1, INL does not have a reasonable potential to discharge stormwaters to waters of the U.S. and compliance with the Industrial Stormwater General Permit is not required.

2.4.8 Spill Prevention Control and Countermeasures Plan

Not Applicable

Based on an October 27, 2003 letter from EPA to DOE, INL does not have a reasonable potential to impact navigable waters of the U.S. or adjoining shorelines. Therefore, a Spill Prevention Control and Countermeasures Plan (SPCC Plan) is not required.

2.4.9 NPDES Industrial Discharge Permit

Applicable to: NFRC, ARR
Regulatory Agency: EPA
Regulatory Reference: 40 CFR 122

It is not anticipated that the NFRC or the ARR would be designed in a manner that would require an NPDES Industrial Discharge. However, an NPDES Industrial Discharge Permit would be required for any point source discharge of industrial wastewater to waters of the U.S.

The practice at one current INL facility is to discharge radioactively-contaminated water to lined evaporation ponds. Depending on the nature and amount of the radioactive constituents, an air permit might be required for such a discharge. The State of Idaho requires operator licensing for the operation of evaporative wastewater treatment systems.

Non-contact cooling water and other non-contaminated, non-sanitary discharge could be discharged to the land surface and would require a wastewater land application permit. The State of Idaho requires operator licensing for wastewater land application activities as well. (See Section 2.4.12.)

2.4.10 Industrial Wastewater Treatment

Applicable to: NFRC, ARR
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.16

The facility may require an industrial wastewater treatment facility to treat radioactive and/or non-radioactive wastewater. Although no wastewater permit is required for an industrial wastewater treatment facility, IDEQ must review and approve plans and specifications prior to the construction, alteration, or expansion of such a facility. No deviations from approved plans may be made without prior approval of IDEQ. If actual construction deviates from the approved plans and specifications, complete and accurate plans and specifications must be submitted for review and approval within 30 days of completion of construction.

The IDEQ does not review or approve industrial in-plant processes.

Based on lack of recent data, it is conservatively assumed that one year will be required to obtain IDEQ review and approval of facility plans and specifications.

2.4.11 Sanitary Wastewater Treatment and Collection System

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.16

It is assumed that the facility will need to construct a sanitary wastewater collection and treatment system. Although no permit is required, the IDEQ must review and approve plans and specifications prior to the construction, alteration, or expansion of such a facility. Facilities must be designed according to the requirements specified in IDAPA 58.01.16. Plans and specifications must be prepared by or under the supervision of an Idaho registered professional engineer, and construction must be observed by a registered professional engineer.

Based on lack of recent data, it is conservatively assumed that one year will be required to obtain IDEQ review and approval of facility plans and specifications.

2.4.12 Wastewater Land Application Permit

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.16.600, 58.01.17

The application of either clean industrial wastewater or sanitary wastewater to the land surface would require a Land Application Permit from the State of Idaho. Waters applied to the land surface must be restricted to the premises of the application site.

Provision must be made for monitoring the quality of the groundwater in proximity to the application site. The groundwater monitoring program is subject to approval by IDEQ.

The practice at one current INL facility is to discharge radioactively-contaminated water to lined evaporation ponds. Depending on the nature and amount of the radioactive constituents, an air permit might be required for such a discharge. The State of Idaho requires operator licensing for the operation of evaporative wastewater treatment systems. DOE Order 5400.5 prohibits new discharges to the soil column.

Review and approval of a Wastewater Land Application Permit is conservatively estimated to take one year.

2.4.13 Potable Water System

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.08

Potable water would be provided through a non-transient, non-community water system. Although no permit is required, IDEQ must review and approve plans and specifications prior to construction, alteration, or expansion of such a facility. The facility must be designed in conformance with IDEQ rules and with the *Recommended Standards for Water Works, a Report of the Water Supply committee of the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers*, except Parts One and Eight.

In addition, the owner must demonstrate to IDEQ that it has adequate technical, financial, and managerial capacity to achieve and maintain compliance with IDAPA rules and the federal Safe Drinking Water Act.

Based on lack of recent data, it is conservatively assumed that one year will be required to obtain IDEQ review and approval of facility plans and specifications.

2.4.14 Potable Water Well

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ, Idaho Department of Water Resources (IDWR), Southeastern District Health Department
Regulatory Reference: IDAPA 58.01.08, IDAPA 37.03.09,

Water wells in Idaho must be constructed in accordance with the requirements specified in IDAPA 37.03.09. For potable water wells, additional design and siting requirements are found in IDAPA 58.01.09. A well drilling permit is required. The drilling permit application identifies the ownership, purpose, and construction information on a form provided by IDWR.

The Snake River Plain Aquifer is the source of all water used at INL. The water is currently provided by a system of about 30 wells, together with pumps and storage tanks. The system is administered by DOE, which holds the Federal Reserved Water Right of 11.4 billion gallons per year for the site. Current INL sitewide groundwater production and usage is approximately 1.1 billion gallons annually.

It is conservatively assumed that one year will be required to obtain a well drilling permit from IDWR.

2.4.15 Process Water System

Applicable to: Common Infrastructure
Regulatory Agency: Not Applicable

Process water would be provided through a water system that is completely separated from the potable water system, to economically address cross-connection and backflow prevention issues associated with combined systems that also intersect with areas having radioactive contamination. The process water system, if totally separate from potable water and coming from a different source well, would not require permitting or approval by IDEQ. Various regulatory and consensus standards govern the design of fire protection systems and other process water systems.

2.4.16 Process Water Well

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ, IDWR
Regulatory Reference: IDAPA 58.01.08, IDAPA 37.03.09

Water wells in Idaho must be constructed in accordance with the requirements specified in IDAPA 37.03.09. A well drilling permit is required. The drilling permit application identifies the ownership, purpose, and construction information on a form provided by the Idaho Department of Water Resources.

The Snake River Plain Aquifer is the source of all water used at INL. The water is currently provided by a system of about 30 wells, together with pumps and storage tanks. The system is administered by DOE, which holds the Federal Reserved Water Right of 11.4 billion gallons per year for the site. Current INL sitewide groundwater production and usage is approximately 1.1 billion gallons annually.

It is conservatively assumed that one year will be required to obtain a well drilling permit from IDWR.

2.4.17 Waste Management Plan

Applicable to: NFRC, ARR
Regulatory Agency: DOE
Regulatory Reference: DOE Order 435.1, DOE Manual 435.1

DOE Manual 435.1 requires that a facility identify its radioactive waste streams and disposition paths for those wastes prior to generation of the waste. No permit is required.

This requirement does not apply to an NRC licensed facility.

2.4.18 RCRA Permit

Applicable to: NFRC
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.05 (40 CFR 124, 260-266, 268, 270, 273, and 279)

It is assumed that the NFRC will generate, treat, and/or store solid wastes that are regulated under RCRA. Consequently, a facility-specific RCRA Treatment, Storage, and Disposal Facility Permit will be required. It cannot be determined at this time whether the facility would be permitted under the existing EPA Identification Number for INL or would require a new EPA Identification Number.

Typically, in Idaho, the IDEQ requires submittal of the RCRA Permit application 24 months prior the start of construction. Generally, preliminary design information is adequate for the initial application submittal. Submittal and IDEQ review of the detailed design information, as it becomes available, can be negotiated with the IDEQ. Permit approval in Idaho may take up to 40 months.

2.4.19 Pollution Prevention and Waste Minimization Plan

Applicable to: NFRC, ARR
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.05.008 (40 CFR 264.73(b)(9))

As a RCRA Permitted Treatment, Storage, and Disposal Facility, it will be necessary for the permit holder to certify to the State of Idaho that it has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the permittee to be economically practicable; and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

2.4.20 Non-Hazardous, Non-Radioactive Waste Disposal, Industrial Landfill

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ
Regulatory Reference: IDAPA 58.01.06.012

INL currently has an existing landfill, known as the INL Landfill Complex, located at the Central Facilities Area. This landfill is operated as a Non-Municipal Solid Waste Landfill (NMSWLF). In accordance with the Idaho Solid Waste Management Rules, Solid Waste Management Facility Classification, the INL Landfill Complex is considered a Tier II facility. As a Tier II facility, the facility may not: (1) landfill or dispose of hazardous waste from conditionally exempt small quantity generators; (2) landfill or dispose of materials with high human pathogenic potential; (3) manage solid waste in a manner or volume that will form toxic leachate or gas; or (4) manage solid waste in a manner or volume that is likely to pose a substantial risk to human health or the environment. The current INL landfill is estimated to have capacity for approximately 100 years from today at the current rate of use. The current INL landfill is approximately four miles from the proposed GNEP site. The landfill is permitted by the IDEQ; however, inspection and enforcement activities are conducted by the Southeastern District Health Department.

If the waste generated by the GNEP facility can meet the requirements for disposal at a Tier II facility, GNEP could continue to use the INL landfill, or could permit a new Non-Municipal Solid Waste Landfill.

The permit application for a Tier II facility includes siting information and an operating plan. The operating plan includes a description of the wastes to be accepted, the methods for maintaining compliance with the general operating requirements, and applicable facility-specific requirements identified in the regulations. Conservatively, one year will be required to obtain a landfill permit.

Although permitted by IDEQ, INL landfills are inspected by the Southeastern District Health Department (of the Idaho Department of Health and Welfare). The Southeastern District Health Department also approves the Operating and Maintenance Plans for each landfill.

2.4.21 On-Site Construction and Demolition Landfill

Applicable to: Common Infrastructure
Regulatory Agency: IDEQ, Southeastern District Health Department
Regulatory Reference: IDAPA 58.01.06.012

Construction of the GNEP facilities and their ongoing maintenance may result in the generation of substantial quantities of construction and demolition waste and it would be economical to have a construction and demolition landfill nearby. Such a landfill would typically be permitted and operated as a Tier II landfill under Idaho regulations. The on-site construction and demolition landfill could be combined with the industrial landfill.

The permit application for a Tier II facility includes siting information and an operating plan. The operating plan includes a description of the wastes to be accepted, the methods for maintaining compliance with the general operating requirements, and applicable facility-specific requirements identified in the regulations. Conservatively, one year will be required to obtain a landfill permit.

Although permitted by IDEQ, INL landfills are inspected by the Southeastern District Health Department (of the Idaho Department of Health and Welfare). The Southeastern District Health Department also approves the Operating and Maintenance Plans for each landfill.

2.4.22 Used Oil Management

Applicable to: Common Infrastructure
Regulatory Agency: EPA
Regulatory Reference: 40 CFR 279 for aboveground tanks, 40 CFR 280 for belowground tanks

No permit is required for the management and disposition of used oil, provided that it is managed in accordance with the requirements of 40 CFR 279. Underground storage tanks must be managed in accordance with the requirements of 40 CFR 280.

2.5 Existing INL Permits

2.5.1 Tier I Operating Permit (Clean Air Act Title V Permit)

INL has an existing Title V Air Operating Permit. The State of Idaho has taken the position that all activities within the boundary of the INL site should be covered by a single Title V Air Operating Permit, irrespective of ownership of the various facilities.

The Title V Air Operating Permit incorporates all enforceable air quality requirements into a single State approved and administered permit.

2.5.2 RCRA Part B Permit

INL has an existing RCRA permit addressing all permitted activities on the INL site. It cannot be determined at this time whether the GNEP facility would be permitted under the existing EPA Identification Number for INL or would require a new EPA Identification Number.

2.6 Required Consultations

Various Federal laws, such as the Endangered Species Act, the Fish and Wildlife Coordination Act, and the National Historic Preservation Act, require consultation and coordination by DOE with other governmental entities including other Federal agencies, state and local agencies, and Native American Tribes. These consultations normally take place as part of the National Environmental Policy Act (NEPA) process.

At INL these consultations have been conducted in the recent past through the NEPA process for several DOE projects. The points of contact, lines of communication, and protocols for complying with requirements and addressing needs are well established and function well.

2.7 Validation of Existing Site Information

The purpose of this section is to present the results of actions taken to gather existing site characterization data that was developed in the 1980s and 1990s to support the regulatory needs of DOE's New Production Reactor (NPR) project and subsequent nuclear facility EISs and Safety Analysis Reports (SARs). Those data can support development of DOE's Environmental EIS for the GNEP project, the subsequent ER that will be needed for licensing the GNEP with the NRC, and preparation of the required safety analysis reports for design, construction, and operation of the reactor and associated support facilities.

Considerable effort was made to select a site and develop the NPR design. The effort concluded that there were no existing or projected prohibitions or constraints that would prevent construction and operation of a reactor at INL. Reports that supported this conclusion included:

- A draft EIS was prepared for siting the NPR at INL. Many of the site characterization studies, as required by 10 CFR 100, were completed under rigorous quality assurance requirements to demonstrate site suitability and to provide data for input to the required safety and design analyses.
- Site Selection Report for the NPR
- NP-MHTGR Integrated Safety Analysis Report
- Draft EIS for the Siting, Construction, and Operation of the NPR
- Final EIS for the DOE Programmatic Spent Nuclear Fuel Management and INL Environmental Restoration and Waste Management Programs
- The Three Mile Island-2 Independent Spent Fuel Storage Installation (INEEL TMI-2 ISFSI) Safety Analysis Report that supported its NRC license

- Advanced Test Reactor Updated Final Safety Analysis Report

Site characteristic assumptions for INL have remained essentially the same, with the exception of public and worker populations, for the past several years. Therefore, there are no significant discrepancies between the information presented in those documents and environmental analyses and impact statements that have been developed previously.

INL has a long tradition in the development of nuclear power. The original mission of INL was to build, test, and operate various nuclear reactors and associated facilities. The isolated location ensured maximum public safety in the field of nuclear research. Today, INL is a multi-program laboratory that supports DOE missions and business lines of nuclear energy research, energy resources, science and technology, and national security. INL has no permanent residents, and ingress and egress of site personnel and visiting personnel are strictly controlled. No casual visits are permitted, except for persons driving through INL on one of five public highways and visitors to the Experimental Breeder Reactor I (EBR I), a national historic monument, which is open during the summer months. Security forces may interrupt traffic on INL roads or public roads that transverse INL during emergencies and other times to support the operations of the laboratory.

INL has a successful history of permitting nuclear and radioactive facilities in Idaho. There is a strong, cooperative relationship with State government in general and regulators in particular. INL has a supportive congressional delegation in Washington.

INL has a well-characterized site for construction and operation of nuclear facilities.

- INL has built and operated the world's largest and most varied collection of reactors—52 nuclear reactors since 1949—and provided the first electrical power to light a city.
- INL operates major nuclear facilities and comprehensive programs that include nuclear waste and materials processing, storage, and disposal; nuclear fuel examination, processing, and development; environmental measurements and monitoring; decontamination and decommissioning; emergency planning and preparedness; and other programs.

Characteristics at INL favoring siting and licensing nuclear facilities are:

- INL's size (890 square miles) and remoteness (the nearest population center is Idaho Falls, 42 miles east) will permit design basis events without impact to the public.
- INL allows establishment of an on-site emergency planning zone similar to that specified for a large commercial plant (10-mile radius, 10 CFR 50).
- Reactor construction and operations at the NPR site would not be adversely affected by other INL facilities and operations.
- Transmission lines owned by Idaho Power and Rocky Mountain Power and Light supply electrical power to INL from the south as well as a continuation line to Montana owned by Montana Power.
- Studies performed by the NPR program indicate that power could be wheeled either north or south, with south being the preferred direction to the major consumers in California.

- Socioeconomic studies for other programs at INL show an abundant labor force is available with little impact on the surrounding communities created by new construction projects.
- The U.S. Fish and Wildlife Service documented that there were no threatened or endangered species on INL.
- There are no wetlands or habitat of special concern at the NPR site.
- Intensive archaeological surveys have been completed, and coordination with cultural resource managers will enable satisfactory placement of facilities.
- Four major all-weather highways service INL. The Union Pacific Railroad crosses the southwest corner of INL, and a spur line runs to the facilities on INL.
- Five commercial airports are situated within approximately 100 miles of the site: 42 miles east in Idaho Falls; 60 miles southeast in Pocatello; 60 miles west in Hailey; 90 miles southwest in Twin Falls; and 105 miles east-northeast in Jackson, Wyoming.
- A large aquifer provides abundant water supply (~2 billion acre-feet), and ample water exists at the INL and NPR site. The existing INL withdrawal permit is 80 cubic feet/second, with utilization of less than 10 cubic feet/second currently. There is a 6-inch production well located on the NPR site. Little or no water treatment is necessary for operations.
- Entrance and exit of INL personnel and visitors is strictly controlled by the INL security force.
- There are no oil or gas pipelines passing through INL.
- Flooding is not a threat to the NPR site. Detailed flood studies have shown the NPR site is unaffected by 500-year return interval flood, and it is 27 feet above probable maximum flood (PMF) from an instantaneous Mackay Dam failure upstream.
- There are no surface faults within five miles of the NPR site.
- Both deterministic and probabilistic seismic hazard assessments to evaluate potential earthquake ground motions have been conducted at INL since the early1970s for establishing seismic design criteria.
- Site-specific deterministic and probabilistic ground motion studies were completed for all INL facility areas during the 1990s.
- Abundant geotechnical data for soils at INL and specifically at the NPR site show that the site will be stable with respect to landsliding, slumping, and liquefaction during earthquake ground shaking.
- There is no potential for landsliding or slumping because the topography of the site is essentially flat. Maximum surface gradients are in the range of 10 feet per mile.
- Volcanic hazard analysis has been assessed. The probability of annual inundation by basalt flows is judged to be 10-6 or less at the NPR site.
- The frequency of tornadoes is less than 10-5 per year.
- There are no commercial air routes within 20 miles of the site.

Table 2-1 Permit Summary

Permit	Regulator/ Regulation	Time To Receive	Detail Required	When Needed
2.4.2 Permit to Construct	State of Idaho IDAPA 58.01.01	8 – 12 months	Specific emissions controls and process equipment	Prior to the start of construction
2.4.3 Title V Permit	State of Idaho IDAPA 58.01.01*	8 – 12 months	Specific emissions controls and process equipment **	For existing Title V Permit, within one year after start of operations
2.4.10 Industrial Waste Water Treatment System	State of Idaho IDAPA 58.01.16	12 months	Final plans and specifications	Prior to the start of treatment system construction
2.4.11 Sanitary Waste Water Treatment System	State of Idaho IDAPA 58.01.16	12 months	Final plans and specifications	Prior to the start of treatment system construction
2.4.12 Wastewater Land Application Permit	State of Idaho IDAPA 58.01.16 IDAPA 58.01.17	12 months	Final plans and specifications	Prior to the start of WWLAP facility construction
2.4.13 Potable Water System	State of Idaho IDAPA 58.01.08	12 months	Final plans and specifications, demonstration of adequate technical, financial, and managerial capacity	Prior to the start of water system construction
2.4.14 Potable Water Well	State of Idaho IDAPA 58.01.08 IDAPA 37.03.09	12 months	Well coordinates and construction specifications	Prior to the start of well construction
2.4.16 Process Water Well	State of Idaho IDAPA 58.01.08 IDAPA 37.03.09	12 months	Well coordinates and construction specifications	Prior to the start of well construction
2.4.17 Waste Management Plan	Federal (DOE) DOE Order 435.1 DOE Manual 435.1	N/A	Identification of radioactive waste streams and disposition paths	Prior to the generation of wastes
2.4.18 RCRA Permit	State of Idaho IDAPA 58.01.05*	Up to 40 months	Preliminary Design information ***	Prior to the start of facility construction
2.4.19 P2 and Waste Min Plan	State of Idaho IDAPA 58.01.05*	N/A	P2 and Waste Minimization Program	Prior to the generation of waste ****
2.4.20 Industrial Landfill	State of Idaho IDAPA 58.01.06	12 months	Site-specific information and Operations Plan	Prior to construction of the landfill
2.4.21 Construction Landfill	State of Idaho IDAPA 58.01.06	12 months	Site-specific information and Operations Plan	Prior to construction of the landfill

* – Federal Requirement implemented through State regulation.

** – Typically, incorporation of PTC requirements is requested by the applicant at time of PTC application submittal.

*** – Typically, the non facility-specific portions of the permit can be submitted for review, with the detailed design information provided as it becomes available.

**** – Permit holder must certify annually that it has such a plan.

2.8 Regulatory or Legislative Prohibitions

2.8.1 Idaho Settlement Agreement

The Idaho Settlement Agreement was negotiated and signed in 1995. It documented agreement by the State of Idaho, the Department of Energy, and the Department of the Navy on the management of wastes and spent nuclear fuel at what was then the Idaho National Engineering Laboratory, now known as the Idaho National Laboratory.

In 1992, as a result of a DOE decision to cease reprocessing of spent nuclear fuel at INEL, coupled with concern over the receipt of spent nuclear fuel from the Fort St. Vrain Nuclear Generating Station, the Idaho Governor initiated negotiations with DOE and the Department of the Navy because of his concern that Idaho would become a permanent disposal site for DOE spent nuclear fuel and waste. (The negotiated settlement resolved two lawsuits: Public Service Co. of Colorado v. Batt, No. CV 91-0035-S-EJL (D. Id.) and United States v. Batt, No. CV-91-0065-S-EJL (D. Id.))

The Settlement Agreement states as follows (section numbering is from the agreement):

> D. Shipments of Spent Fuel to INEL
>
> 2. Shipments of DOE spent fuel to INEL shall take place as follows:
>
> e. Except as set forth in Section D.2.d. above, DOE will make no shipments of spent fuel from commercial nuclear power plants to INEL. (Section D.2.d refers specifically to Fort St. Vrain spent fuel.)

In recognition of the need for a future mission for INL, the agreement provided that INL would be designated the DOE's lead laboratory for spent nuclear fuel, and it was further agreed that INL would direct the research, development and testing of treatment, shipment and disposal technology for DOE spent nuclear fuel. This section also allows INL to bring spent nuclear fuel into Idaho for research and development purposes:

> F. Spent fuel program
>
> 1. Establishment of INEL as DOE Spent Fuel Lead Laboratory. DOE shall, within thirty days of entry of this Agreement as a court order, designate INEL as the Department's lead laboratory for spent fuel. DOE shall direct the research, development and testing of treatment, shipment and disposal technologies for all DOE spent fuel, and all such DOE activities shall be coordinated and integrated under the direction of the Manager, DOE-Idaho Operations Office. Such designation shall not permit the shipment to INEL of any spent fuel beyond that permitted by this Agreement with the exception that quantities of spent fuel brought to INEL for testing in excess of those permitted by this Agreement shall leave the State of Idaho within five years of the date of receipt at INEL.

The agreement also contemplated the need for modification of the agreement, or for exceptions to the agreement, and provided a pathway for doing so:

> J. Good faith compliance and affirmative support

1. The federal parties and Idaho agree that the activities to be performed under this Agreement and the subsequent Consent Order are in the public interest. The federal parties and Idaho acknowledge the complexity of this Agreement and have agreed to act in good faith to effectuate its fulfillment. The federal parties and Idaho shall affirmatively support this Agreement and its terms, conditions, rights and obligations in any administrative or judicial proceeding. The federal parties and Idaho intend to seek a sense of the Congress resolution expressing support for the terms, conditions, rights and obligations contained in this Agreement and the subsequent Consent Order and recommending to future Congresses that funds requested by the President to carry out this Agreement be appropriated. In any administrative or judicial proceeding, Idaho shall support the adequacy of the EIS and ROD against any challenges by third parties. Idaho shall have the ability, in its sole discretion, to waive performance by the federal parties of any terms, conditions and obligations contained in this Agreement.

On March 15, 2007 the current Governor of Idaho signed Senate Bill No. 1148, which, in part, assigns to the Director of the Idaho Department of Environmental Quality the requirement to monitor the implementation of agreements between the United States and the State of Idaho related to the operation and environmental protection obligations of the Idaho National Laboratory and provide periodic information to the governor, the attorney general, the legislature, and the people of Idaho concerning compliance with such agreements and obligations. The bill also gives the Director the power to enter into agreements with DOE in order to carry out the duties and authorities provided in Section 29-104 of the Idaho Code.

2.9 Regulatory Licensing and Permitting Summary and Conclusions

There are no regulatory constraints or prohibitions that would prevent siting and operating the GNEP facilities at INL.

High-quality, site-specific environmental characterization and monitoring information is available to satisfy most license and permit application needs. In cases where more current information may be needed by the regulator, the project schedule should allow for acquisition of the information without any adverse impact to that schedule.

Permits that would likely be required for the proposed GNEP facilities are typical of permits that have been obtained for existing and past facilities at INL and issuance of the required permits would not be considered unusual or extraordinary by the regulators. With appropriate coordination between GNEP project personnel and the regulators, the regulators can provide efficient and timely review of GNEP permit applications.

The Idaho Settlement Agreement is not viewed as an impediment to siting and operation of the GNEP facilities in Idaho. Based on informal discussions, it is believed that the GNEP facilities can be constructed and operated at INL in keeping with the spirit and intent of the Settlement Agreement, although the State of Idaho may wish to negotiate a supplemental or additional agreement governing the management and disposition of wastes resulting from operation of the facilities.

3.0 Community Outreach Program

3.0 COMMUNITY OUTREACH PROGRAM

3.1 Introduction

This section outlines the purpose, work elements, and results of the community outreach program. It provides a detailed description of what has been completed and what has been learned, and serves as a basis for recommending additional activities related to potential development of GNEP facilities at INL.

3.1.1 Outreach Program Purpose

If the INL site were selected as a GNEP location, the new activities would build upon eastern Idaho's historic role in nuclear energy technology research and development. The purpose of the community outreach program was to hear the views of community leaders and the general public about having the GNEP facilities at INL, the reasons for their views, and their questions and concerns that would need to be addressed in further outreach. For that purpose, the RDA team initiated activities to hear from both community leaders and the public in southern and eastern Idaho through (1) interviews and workshops with community leaders, and (2) focus group sessions with the general public.

3.1.2 Elements of Outreach Program

The community outreach team moved quickly to structure and implement a range of activities during the February through April 2007 time period, which coincided with DOE's public scoping meeting for GNEP in Idaho Falls on March 15. The elements of the outreach program included the following:

- Develop and disseminate basic information about GNEP, including the need for the facilities and their basic operations, elements of the siting studies, the DOE 13-site evaluation process and NEPA evaluation, and other related topics. This information was used in the form of fact sheets and handouts, using DOE-provided programmatic information as well as Idaho-specific handouts, and on a specially created website hosted by RDA that provided online electronic opportunities to learn about GNEP. The Idaho-specific information materials are provided in Appendix A of this report.
- Conduct one-on-one interviews with community leaders identified across southern and eastern Idaho, where interviewees were asked to review project material, comment on GNEP siting, and raise questions.
- Conduct two-part community outreach activities structured to build upon the key themes and ideas provided through the interviews, bringing together (1) the community leaders who were interviewed to review and react to the full set of interview results and themes, and provide their ideas on additional issues and information needs; and (2) investigating the knowledge levels and questions of the general citizenry to determine and document the opinions of the general Idaho public in relation to GNEP. The objectives were accomplished by inviting interviewed community leaders to follow-on workshops, and, concurrently at each location, meeting with randomly sampled population groups from eastern and southern Idaho.

The team obtained reactions of representative samples of citizens to GNEP materials and concepts, their questions and issues, and their opinions, through a structured set of focus group sessions. The two-part community outreach activities were held in Idaho Falls, Twin Falls, and Boise on April 3, 4 and 5, 2007, respectively. Key themes and results are presented in Section 3.3 of this report.

- Analyze the findings of all the community outreach activities to delineate the reasons for views about GNEP facilities at INL and main questions and concerns. This information will guide future community outreach.

3.2 Community Outreach Methodology

This section provides the specifics of how community outreach was planned and implemented during this phase of the GNEP assessment for eastern and southern Idaho.

3.2.1 Briefing Materials

Table 3-1 lists the briefing materials that were prepared and distributed as part of the community outreach program. It was critical to develop and share some basic information about GNEP's purpose, components, and evaluation process as a basis for beginning a dialogue with Idahoans. The RDA team primarily utilized existing DOE-prepared materials for the initial one-on-one stakeholder interviews, augmented with two Idaho-specific informational sheets (items 1 and 2 in Table 3-1). During the stakeholder interviews, the interviewees were asked what might be done to supplement or improve the existing materials. For the community outreach activities that followed, some of these materials were used to answer additional questions. Specifically, during the focus groups, items 1, 3, and 4 of Table 3-1 were utilized to help inform citizens about GNEP. All of these materials can be found in Appendix A.

Table 3-1 Briefing Materials Used as Part of Outreach Program

Item	Description	Used As
1	Project-specific prepared, duplex-printed "Commonly Asked Questions" sheet.	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities; questions more specific to local concerns.
2	Single-sided Facility Summary Sheet	Brief for initial one-on-one stakeholder interviews; outlined types of proposed facilities.
3	Four page DOE-prepared GNEP Summary Sheet	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities.
4	One page DOE-prepared "Potential Locations" single-sided fact sheet	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities.
5	DOE-prepared "Dear Interested Party" duplex-printed letter	Brief for initial one-on-one stakeholder interviews.

3.2.2 RDA Website

A GNEP site was developed and made available through RDA's existing website (http://www.rdaidaho.org/gnep.php) to provide online access to basic GNEP information for interviewees and other stakeholders. It will also serve as an easy-to-access information source for continuing information on GNEP as the DOE environmental process moves forward. At this time, the basic information developed for and used in community leadership interviews and for the community outreach activities is posted on the site with explanatory content. As further materials emerge, the RDA website will be updated to reflect currently available information.

3.2.3 One-on-One Interviews

The purpose of the one-on-one interviews was to identify a cross section of community opinion leaders throughout eastern and southern Idaho, and northwestern Wyoming, who might be able to identify issues, offer reactions to basic information materials, predict public reaction, frame questions for further analysis, and provide perspectives on GNEP's potential future in eastern Idaho. To accomplish this task, the RDA team pooled its knowledge about the communities who have traditionally been involved in INL activities and discussions, and other groups that might be expected to either support or have concerns with a new GNEP mission. Categories of stakeholders were established to include the broad spectrum, including:

- Local elected officials
- Federal and state agency representatives
- Business leaders (including large companies, real estate leaders, local investment groups, trade union leaders)
- Economic development entities
- Environmental and conservation non-governmental organizations
- Educational leaders (public schools, universities, technical institutions)
- Media
- Tribal governments
- Other opinion leaders in communities affected by INL

Table 3-2 summarizes the geographic and category distribution of the interviews completed, which totaled 46.

Table 3-2 Stakeholders Interviewed Sorted by Category

Stakeholder Category	Idaho Falls	Twin Falls	Boise	Northwestern WY	Total
Local elected officials	5	2			7
Federal/state officials	2		3		5
Business leaders	3	2	4		9
Economic development	2	3	2	1	8
Environmental/conservation	1		1	1	3
Education	3	3	2		8
Media	1	1	1		3
Tribal government	1				1
Other	1	1			2

In planning for the one-on-one interviews, a team of six RDA communications team members made initial contacts and arranged one-hour personal meetings with target interviewees. Team members included staff from Battelle, BEA, EnviroIssues, and P2-solution. Calls were made and emails sent explaining the purpose of the interviews and the GNEP community outreach effort, and respondents were asked to commit to reviewing the basic information, participating in the interview, and reviewing the interview notes for accuracy and completeness. Appointments were made during mid-February, and confirmed interviewees were emailed the basic GNEP information materials (listed in Table 3-1) and their review requested prior to the interviews.

Reactions from community leaders approached by the team were generally positive. If people were aware of GNEP, they were often very willing to discuss it. If not aware of it, schedulers provided some basic verbal understanding. In a few cases, identified contacts declined to be interviewed, primarily because they were not available due to schedule constraints or because the topic was outside their personal or organizational areas of interest. In other instances, contacts suggested individuals who should be interviewed instead, whom they judged to be able to provide perspectives.

Two-person community outreach teams met personally with almost every community leader identified during late February and early March. A standardized interview protocol was established, which is attached in Appendix B. Interview notes were taken by hand during the discussions, and then summarized by each interview team. Review drafts were provided by email to each interviewee within a few days of the interview for their review. Requested revisions ranged from no changes to minor wording changes. Final interview summaries, not attributed to specific interviewees, are included in this report as Appendix C. Key themes from all the interviews were developed and are presented in Section 3.3.1 below. In addition, interview summaries and key themes were compiled and provided to community leaders by email in advance of the community outreach workshops for their overall review. The purpose of this was to use that content as the basis for further discussions at the outreach workshops.

3.2.4 Focus Groups with General Public

Focus groups with the general public were held to supplement the outreach with community leaders. The purpose was to understand how the public would receive GNEP facilities in the state, the reasons for their opinions, and the questions and concerns that would need to be addressed.

Focus groups were determined to be a better methodology at this point than a survey because GNEP is a new subject for the general public. Therefore, it was necessary to provide some background information about GNEP before assessing opinions, and focus groups are better suited than a survey for this purpose.

The focus group format provides an informal setting where people discuss the issues and interact. New ideas, questions, and concerns that may not be captured in a survey can be probed in-depth in focus groups.

3.2.5 Community Outreach Activities

On April 3, 4, and 5, 2007, three community outreach activities occurred. The first part of each activity was a workshop with community leaders who had been previously interviewed. The second part was two focus group sessions with members of the general public. The activities occurred in Idaho Falls, Twin Falls, and Boise on April 3, 4, and 5, 2007, respectively. Section 3.3.2 provides a summary of the results from the workshops and the focus groups in each locale.

(a) Community Leadership Workshop Sessions

Leading up to the workshops, community leaders received summaries of the interviews with respect to the issues, concerns, and questions raised (often referred to as themes) across the state. The team also made confirming telephone calls to interviewees to ensure they had received the materials and were planning to attend the outreach activities.

As an opening for each workshop, the facilitator thanked the participants for attending and described the objectives of the workshops as being to:

(i) Help make sure that the summary of themes correctly and completely communicated the full range of stakeholder issues and reactions to the GNEP
(ii) Get answers to technical questions about the GNEP
(iii) Participate in a dialogue to understand other people's perspectives regarding GNEP

The facilitator emphasized that the point is not to have consensus on the issues but for participants to feel at the end of the session that their issues were heard and captured.

After introductions, a short reminder of the steps that lead up to the workshop, and a description of how the results would be used, the facilitator asked the group to decide whether they wanted to start with questions for the technical expert, who was present at each workshop, or to discuss the 16 themes on the

summary list (see Section 3.3.1). Different workshops started at different points but each group had a thorough discussion of the themes and spent time asking detailed technical questions of the expert.

(b) General Public Focus Group Sessions

Two focus group sessions were held in each location—Idaho Falls, Twin Falls, and Boise—for a total of six sub-groups. Each focus group session lasted for about two hours.

Bisconti Research, Inc. conducted the focus groups for the RDA team. The guide used in facilitating these sessions is in Appendix B. Northwest Research Group of Boise, which specializes in focus group facilities, recruitment, and logistics, conducted screener interviews by telephone in order to recruit about 10 persons per group with the following characteristics:

- News attentive (must read newspapers or follow news on radio or TV at least six days per week)
- Equal gender split
- One-third each Democrats, Republicans, and Independents
- Some ethnic diversity
- Good age spread (mostly 25–55)
- At least 50 percent college graduates
- Able to articulate important issues facing the world today

The rationale was to have a good demographic mix but focused on people who follow issues and are able to express opinions. The political party break was especially important because ideological differences in the United States today tend to be politically defined.

A total of 51 persons participated:

- 19 in Idaho Falls
- 13 in Twin Falls
- 19 in Boise

Focus group participants were seated around a table, and the discussion was led by a moderator. The main topics of all the focus group sessions included:

- Energy problems facing the nation or the world—this topic was used to warm up the discussion and also to learn about underlying concerns that people in Idaho have today about energy.
- Opinions about GNEP—the four-page overview from the GNEP website was handed out to participants to read for background information (Appendix A).

- Opinions about having one or more of the GNEP facilities at INL—a two-page document by RDA entitled "Some Common Questions about the Global Nuclear Energy Partnership" was handed out as background, along with a map of the United States showing the candidate sites (Appendix A).

About 20 minutes of the sessions were devoted to a small group exercise. Participants were divided into two groups. Each small group was given this assignment:

1) Describe GNEP in simple terms. Think about how you would describe GNEP to your next door neighbor.

2) Decide as a group whether or not GNEP facilities should come to INL. Decide yes or no and explain why. If you cannot agree, say so and explain the different opinions.

The small groups worked independently. The moderator observed but did not direct or participate in their discussions. Each small group assigned a member as scribe to write their points on an easel pad and a reporter to report back to the full group. Everyone participated in the ensuing full group discussion.

3.3 Results − Stakeholder Interviews and Community Outreach Activities

This section provides the results of the community outreach, including key themes from the interviews and both segments of the community outreach activities.

3.3.1 One-on-One Interviews with Community Leaders

A wealth of information resulted from the one-on-one interviews held with 47 community leaders from throughout eastern and southern Idaho and Jackson, Wyoming. Using the standard interview protocol described above, interviewees were encouraged to provide their perspectives, reactions, and ideas about the process in an objective, open-ended discussion format. Team members facilitating the interviews were careful to present the information objectively and to draw out full responses to the questions without reacting or responding.

Interview summaries were distributed to all interviewees for review. Detailed summaries of the interviews are included in this report as Appendix C. Key themes as summarized from the interviews include the following:

1. Significant support exists, most strongly in the Idaho Falls area

Significant support exists for locating GNEP facilities in eastern Idaho, especially in the Idaho Falls area. Reasons cited included the need for cleaner forms of energy to solve the energy crisis/combat climate change, economic benefits from new facilities including jobs in the area, and maintaining and improving upon eastern Idaho's reputation as a technologically advanced and research oriented resource for the country and the world (all described below). Interviewees from areas at a greater distance from the proposed GNEP locations (Pocatello, Twin Falls, and Boise) also show significant support, though

their citizenry may be less knowledgeable about INL activities and history and, therefore, perhaps not as overwhelmingly supportive as the Idaho Falls area.

2. A few interviewees oppose any GNEP facilities

A few interviewees opposed GNEP in concept. From a policy standpoint, two individuals interviewed indicated that they are opposed to operating GNEP facilities. Their opposition was based on discomfort with further and very expensive investments in nuclear energy and what they feel to be unnecessary reprocessing, fears for safety and the environment, concern about nuclear proliferation, and dissatisfaction with how traditional reprocessing had operated and how GNEP may not be as different from older methods as DOE believes. One interviewee felt that sharing this technology with other nations that may be our friends today but could become adversaries in the future was unwise, because they could somehow use the technology against us. Furthermore, DOE should be focused on its cleanup mission at its sites and investing in renewable energy solutions rather than nuclear energy. One other interviewee indicated that research-scale facilities at INL are consistent with its mission, but that the mission does not allow for commercial-scale operations of nuclear facilities. Characterizing the GNEP processes as "recycling" rather than "reprocessing" was also seen as inappropriate by these individuals; they perceived the information materials provided for review to be biased in favor of the GNEP program. One interviewee feared that deciding to reprocess spent fuel is a policy change that would fundamentally change the U.S. role in nonproliferation and our reputation worldwide. Such a major shift in public policy should not be rushed. It was also feared by one interviewee that the utilities would oppose GNEP because it will make reprocessed fuel rods very expensive unless they are heavily subsidized.

3. GNEP is seen by many as an important solution to solve the energy crisis/fight climate change

Many interviewees see nuclear energy as an evolving technology that must be considered into the future if we are to start solving the energy crisis. This comment was often made in reference to our political situation in the Middle East and beyond and/or in relation to our need to reduce our national dependence on foreign energy sources. Moreover, some saw the need for DOE to do a better job at defining GNEP as a means to help address climate change. Nuclear energy could be used in conjunction with conservation and renewable energy alternatives to reduce greenhouse gas emissions that are released by carbon emitting utilities.

4. Economic benefits are of interest

Economic benefits were often expressed as a potential benefit of GNEP facility development at the INL site, focusing on the importance of sustainable, consistent long-term investments and benefits. Some leaders see the potential in GNEP and other INL assets, including research results and investments, that might be leveraged to increase technologies (e.g., medical, energy). Some interviewees perceive that economic benefits have long accrued primarily to the Idaho Falls area, and GNEP might be an opportunity to spread them more broadly (such as to Bannock County) and to leverage them more effectively.

5. Consistency with INL mission is important

Most community leaders interviewed are highly knowledgeable about INL's history, accomplishments, mission, and safety record. Many described pride in being the home of such a renowned institution. Almost all interviewees strongly support advancing INL's mission, which includes emphasis on research and building on the legacy of nuclear activities and historically safe research activities. Some questions were raised, however, about the wisdom of scaling up research technologies to commercial-scale facilities, both in terms of technical challenges and in terms of compatibility with INL's traditional research mission.

6. Interest exists in reducing stockpiles of spent fuel

Interviewees understood the preliminary information about how GNEP could improve the safety of spent fuel management in this country and potentially abroad, and the goals for reducing nuclear proliferation risk as well as reducing high-level waste disposal needs in the United States. Reactions to those concepts were generally positive, though questions arose about how those goals could be accomplished viably with safety. Such questions included how DOE plans to track/monitor all materials coming into Idaho, and how DOE plans to develop safeguards to ensure products of reprocessing do not get into the wrong hands, etc.

7. Questions were raised about residual waste products

The single largest question raised was in reference to waste products remaining after the GNEP processes are complete. Broadly, interviewees asked what the volumes of waste would be; what its characteristics would be in terms of waste form, radiation level, and toxicity; how and for how long it would need to be stored; and, importantly, what would be the clear path and timeline for removing residuals from Idaho. Where will low-level radioactive waste be disposed? What happens if Yucca Mountain never opens? Will the high-level waste remain in Idaho forever? These issues will be of interest to many, and will require further information and discussion. Discussions with the tribal government resulted in questions about waste production and disposition, accumulation of spent fuel and wastes at INL, Yucca Mountain's schedule and policies, and other similar waste related areas.

8. The Idaho Settlement Agreement warrants discussion

Some have expressed belief that Idaho's Settlement Agreement with DOE bars shipment of commercial spent fuel to Idaho; many others believe an arrangement might be possible that would honor the Settlement Agreement while still allowing spent fuel to come to Idaho in support of GNEP's research mission. This is another issue that will bear further discussion.

9. Transportation of spent fuel raises questions

Some concern exists about transportation risk in terms of bringing spent fuel from all over the country to Idaho; some believe GNEP facilities should be located nearest to stockpiles of spent fuel to minimize shipping distances. Many people believe spent fuel transport could be done safely, but suggested that information and education about shipping safeguards, historic safety records, and emergency response planning would

need to be a priority. Of special interest to the tribal government is the transportation of spent fuel and waste materials over or near their reservation. The tribal governments place strong emphasis on their tribal sovereignty.

10. Facility details need to be further defined

More information will be welcomed on the details of GNEP technologies and facilities. People are interested in facility footprint and configurations, operating technologies for a GNEP reactor compared with a standard reactor, realities of how UREX+ compares to PUREX process in terms of proliferation resistance, how nuclear materials would be managed and monitored (full material accountability throughout processing steps), how the facilities would ultimately be decommissioned, and other details of GNEP design and operation. One interviewee wanted to know what type of reactor is planned for the ARR; if it is a sodium-cooled reactor, the interviewee has concerns. Whether the facilities would be owned and operated by the government or by private industry is also a question to be answered, and may affect public confidence—some believe a private entity would be more trustworthy and more reliable than a federal government that changes administrations and priorities. Another interviewee felt that the facilities should be under federal control (or by a federal contractor) because a private company may be more subject to short-cutting environmental and regulatory issues due to performance incentives. Some felt that more detail is needed on the estimated full costs of GNEP. A few interviewees had questions about scaling up the facilities and how difficult this will be. Several interviewees wanted to know about the timing for the three facilities associated with GNEP; will the research facility be built before or after the other two facilities? Similarly, there are uncertainties associated with making fuel (from NFRC) for the ARR. Also, how does Gen IV research on the next generation of reactor compete with GNEP?

11. People care about safety and nonproliferation

Another category of questions that will need to be answered focus on safety. Discussions with the tribal government resulted in questions about accident response. Interviewees indicated that they, and more broadly the people of Idaho, will want information about adequacy of safety measures to protect against worker and public exposure, about potential criticality of the processes, and about safeguarding nuclear materials from terrorist, criminal, and natural disaster events. While many reacted favorably to the concept of reducing proliferation risk via improved waste material separation and the formation and handling of isotopes, others believe that reprocessing spent fuel increases the potential for nefarious access to weapons materials.

12. Regulatory hurdles remain to be addressed

The GNEP responsible program management will also need to convince the regulatory bodies in the DOE or NRC that the program can be done safely. Unless there is a definitive regulatory/permitting process, businesses/investors will not commit capital to the projects.

13. Environmental impacts need to be considered

Analyses on the potential of GNEP facilities at the INL site will need to assure Idahoans that environmental impacts have been avoided, minimized, or can be mitigated.

Interviewees asked that work be done on how GNEP facilities could potentially affect water quality in the Snake River Plain Aquifer, emit airborne contamination, be damaged or destroyed by seismic events, and require supplies of water that would impinge on eastern and central Idaho's precious water resources. Water issues are of particular concern to stakeholders in the Twin Falls region. There was a specific question about water quantity; how much water will GNEP facilities require and how do they plan to obtain water rights? Some had questions about uranium mining impacts resulting from increasing use of nuclear energy in this country and globally. The tribal government raised questions about natural resources and environmental protection.

14. Funding by and trust of the federal players are both questioned

Another policy question raised was whether DOE and Congress are in a position to commit the needed resources and funding to make GNEP a reality. GNEP facilities would be very costly (robots, hot cells, etc.) and funding levels for GNEP-like projects have traditionally been too low. Idaho has often supported new investments in technology at INL, and has sometimes been disappointed when they do not follow through to construction. Idahoans will want to understand the steps to be taken, should GNEP proceed, to create certainty about time frames and needed investments. Other interviewees indicated that there is public distrust of government overall, of DOE based on past non-transparent activities and resulting problems, and likely distrust of this initiative from some sectors of the population. DOE needs to fully open up the process and be totally transparent. Credible third-party experts may need to engage in the discussion to build trust for GNEP if it moves forward. Generalized distrust of nuclear facilities may cause citizens to equate GNEP reactor operations with the Chernobyl and Three Mile Island accidents.

15. The international scope of GNEP is not yet well defined

Global aspects of what is being proposed are unclear. Which nations are providing which services for which other nations? Information needs to be provided for the public to understand the full ramifications of GNEP.

16. Timing is off—some see the need to accelerate GNEP, while others want slower movement

For some, GNEP is not on a fast enough track. The United States is already well behind other countries in leading cutting-edge nuclear energy research and this project is not happening quickly enough to advance the U.S. position. On the contrary, another interviewee felt that DOE should not be rushing into GNEP—the U.S. should first build more nuclear power plants, and then the Advanced Fuel Cycle Research Facility (AFCRF) prior to building the recycling center and the reactor.

3.3.2 Community Outreach Activities

(a) Community Leader Workshops

The following summary provides the additional comments and questions heard at each of the three community leader workshops organized around the original 16 themes (including new themes if offered) and additional questions that were asked.

1. Significant support exists, most strongly in the Idaho Falls area

Idaho Falls: No additional comments offered because participants felt the summary well captured the support.

Twin Falls: One participant argued that to secure future support of GNEP, messaging will be very important. DOE should research community perspectives and know what issues need to be addressed. What will sell GNEP to the general public? First answer this question, and then develop a proactive campaign instead of a reactive response. There is some belief that the general public will not resist GNEP in Idaho.

Boise: One participant listed the following entities as having support for and interest in GNEP: three universities, 17 mayors who attended the PEIS scoping meeting, both the State House and Senate (with some dissent), the U.S. Congressional delegation, and the Chambers of Commerce throughout the state. There was some discussion about whether these entities truly endorse GNEP or are simply in favor of the economic development GNEP might bring to the state. It was agreed that GNEP complexities are not yet well understood, but that many support GNEP because it provides part of a solution to our energy crisis—a relatively clean and environmentally friendly alternative to oil/coal, and an opportunity for extending the INL mission.

2. A few interviewees oppose any GNEP facilities

Idaho Falls, Twin Falls, and Boise: No specific comments offered; participants felt that the summary captured their comments or they brought up specifics under other themes.

3. GNEP is seen by many as an important solution to solve the energy crisis/fight climate change

Idaho Falls: One participant recognized that the United States is not linked with other countries in combating climate change (e.g., Kyoto Protocol).

Twin Falls: It is believed by some that the next generation of nuclear reactors will provide a clean alternative and can help us reduce our dependency on energy that currently impacts climate change. DOE should be using this fact to develop political support for GNEP.

Boise: A policy discussion took place during the workshop. While some feel that nuclear energy helps solve greenhouse gas problems, another stakeholder brought up the point that uranium mining and other related activities increase greenhouse gas contribution. Another stakeholder countered: if there was an effort to shut down all nuclear power plants, we would see a rise in greenhouse gases.

4. Economic benefits are of interest

Idaho Falls: No new comments.

Twin Falls: A stakeholder suggested the concept of an extraction tax to compensate for risk to Idaho citizens. For every kilowatt hour produced or for every ton of resulting waste, provide the state some type of compensation. This is somewhat akin to the tax utilities pay into the federal pool to cover current spent fuel disposal expenses that the government is to handle. Funds from such a tax could help benefit citizens across Idaho (e.g., education) and would go a long way towards building good will in the state. Stakeholders talked about power benefits as well. There was a coal-fired power plant proposed in the area that was shelved because the power was to be sold out of state and the citizens did not want to assume the risks with limited benefits (jobs). There is a lesson from this. Stakeholders think that energy produced through the ARR should become local power (sell power to the Idaho grid). These policy arrangements will need to be negotiated.

Boise: Stakeholders felt that diversification of jobs undoubtedly provides value. but it would be helpful for the state to receive some support for GNEP-related infrastructure needs.

5. Consistency with INL mission is important

Idaho Falls: Some felt that research is more critical to the mission of INL than developing a commercial venture to produce electricity.

Twin Falls: Stakeholders saw INL as the lead nuclear laboratory in the nation, but with GNEP, will it become more of a quasi-utility? Will this result in a change in mission? During this discussion, additional questions were asked about the entities that will operate the GNEP facilities and the resulting power—who are they? One stakeholder asked about the status of nuclear space batteries being built at INL. It was raised that other competing projects at the site will be important to consider.

Boise: One stakeholder asked whether GNEP fit INL's mission. There is great fear by some that INL's mission will expand if waste comes to and does not leave Idaho, thereby becoming a long-term storage facility.

6. Interest exists in reducing stockpiles of spent fuel

Idaho Falls: One participant asked how the spent fuel shipped into the site would be stored and for how long. Another participant responded that a Deputy Director of DOE had said "Let's not kid ourselves, we're talking decades" in referring to how long spent fuel will be stored. Another participant asked at what point can no more spent fuel be stored under the current system? Another participant said that the current funds from the federal government to pay them because the government is not in a position to take title to the waste as is required under the Nuclear Waste Policy Act.

Twin Falls: A discussion ensued about delays with Yucca Mountain receiving shipments of waste. There is a clear need to ensure a waste repository is open and accepting waste.

Boise: Some stakeholders look to GNEP as a means to free more space at Yucca Mountain. Depending on the design/quantities of waste processed, the amount of long-lived waste may be permanently reduced. However, the amount of low-level waste is unknown and represents another concern to some. One individual thought it prudent to tag a fourth component to GNEP—completion of Yucca Mountain.

7. Questions were raised about residual waste products

This theme was one of greatest interest to all stakeholders at all locations. Stakeholders want to understand what the residual wastes are associated with the current fuel once-through approach versus the recycling approach proposed under GNEP.

Idaho Falls: One participant raised the point that problems could occur with the waste streams generated. Another participant pointed out the GNEP is an approach to minimize the waste streams and address the constant pileup of spent fuel. A different participant said that it was irresponsible that the current pile up of spent fuel was allowed to go on as long as it had without being addressed. Another participant asked what the treatment plans were for the waste streams coming out of GNEP, and was also asked about the break-down in types of waste that would result from GNEP. A participant said that reprocessing of spent fuel is very costly given each step you have to put the material through. Another participant read in a Harvard study that reprocessing is 10 to 20 times the cost of once-through spent fuel management.

Twin Falls: A long-term management plan for residuals is needed.

Boise: There is concern that INL will become another Yucca Mountain. Some feel that DOE should investigate interim storage alternatives instead of rushing into reprocessing. Others feel we should more thoroughly investigate the utility of the waste components we currently think are unusable. One stakeholder thought it prudent to hold community forums to discuss the waste, its constituents, risks, uncertainties, and alternatives.

8. The Idaho Settlement Agreement warrants discussion

Idaho Falls: One participant asked about the impact of the Settlement Agreement on GNEP and the response from one of the interviewers was that the team had heard a range of positions from the various community leaders interviewed so there appeared to be no one answer as to whether the Agreement needed to be revisited but it was clear that it needed to be further discussed.

Twin Falls: There are some who believe that the Settlement Agreement will need to be revised.

Boise: Generally, stakeholders believe that the spirit of the Settlement Agreement was not to prohibit reprocessing. Rather, the Agreement was

designed to keep Idaho from becoming a long-term waste storage (defacto disposal) facility.

9. Transportation of spent fuel raises questions

Idaho Falls: No additional comments.

Twin Falls: Spent fuel would arrive in Idaho from up to 104 light water reactors (LWRs) across the country. (Note that there are currently103 operating reactors and one additional reactor that has an operating license that is expected to restart in the next one to two months). The question was asked was asked if it would be possible to divert the waste to locations for weapons grade material.

Boise: One participant feels that there are unresolved issues surrounding the transportation of commercially spent nuclear fuel in and out of Idaho. The country needs to be careful given that the political future is uncertain—"our friends today may be tomorrow's enemies." Another stakeholder argued that shipments of spent fuel have been shipped all over the globe for the past 50 years with no accident.

10. Facility details need to be further defined

There was much interest by stakeholders at all three workshops to better understand the specifics envisioned for the GNEP facilities.

Idaho Falls: One participant asked about scale-up of the technologies behind GNEP. A question was asked about the schedule for having the GNEP facilities operational.

Twin Falls: No additional comments.

Boise: Some stakeholders felt that the lack of definition makes GNEP very difficult to assess. More details are needed for Congress and for Idaho before a decision can be made about how to proceed. Stakeholders saw that a phased approach might make the most sense to move from a demonstration facility to a full-scale commercial facility.

11. People care about safety and non-proliferation

Idaho Falls: No additional comments.

Twin Falls: Stakeholders see a real need to address safety concerns. In addition, even though there is an effort to become an international leader and potentially the ability to observe other countries in their enrichment pursuits, proliferation will be difficult to control. GNEP won't stop the "Irans" but it could stop mid-level players and other countries currently lacking ways to make fuel (that could be diverted to make a bomb).

Boise: If there is only one ARR built in the country, it may result in fuel without a home. There will be a need for several of these fast reactors for the system to

work effectively. One stakeholder quoted testimony from Harvard's Matt Bunn who did not feel that GNEP was a good nonproliferation option and that we were moving too quickly to support it. This same individual asked whether a terrorist could make a bomb from the material coming out of the NFRC.

12. Regulatory hurdles remain to be addressed

Idaho Falls: RDA mentioned that it is looking at all possible regulatory issues in its drafting of its siting study for DOE.

Twin Falls: No additional comments.

Boise: No additional comments.

13. Environmental impacts need to be considered

Idaho Falls: One participant wanted to know how much water would be used by the group of facilities and how much of it would be contaminated. One participant raised concern that contamination problems have occurred at other sites conducting reprocessing and questioned why GNEP would be different.

Twin Falls: Environmental issues that arose include water quantity and uranium reserves. In terms of uranium, the question of whether there is enough reserve in the United States to support nuclear power resurgence arose.

Boise: Environmental issues that arose include liquid waste concerns and the need to vitrify some wastes and how vitrification has historically been problematic at other sites. One stakeholder mentioned a leak that had occurred at an English reprocessing facility that went on undetected.

14. Funding by and trust of the federal players are both questioned

This theme was one of the major ones debated at each of the workshops. The lack of political will to fund GNEP for the number of years necessary to see it become a reality was discussed at each workshop.

Idaho Falls: The discussion at the workshop began with one participant questioning whether GNEP will ever be a reality. The participant is skeptical that DOE and the Administration have the political will to carry out the mission. Another participant argued that GNEP is an important step to help the United States catch up with several other countries that have passed the United States in nuclear research, development, and implementation. Another participant agreed and said that if the public doesn't let the Congress know how important this project is, the politicians won't support funding. It was recognized by several that the funding necessary for GNEP is enormous, which could be a barrier.

Twin Falls: Questions on funding were raised. Who will pay for GNEP? Will it be DOE and/or the 104 LWRs across the country? One stakeholder thought it would be more palatable if the 104 reactors were paying (or helping pay) for the

GNEP solution. In addition, distrust of the federal government was discussed. One potential solution is to focus more on INL presence across the state. Currently, the community does not have a good sense where to go within INL for information (INL's presence in Twin Falls seemed to end in 1995). Finally, there are some stakeholders who think GNEP may be an exercise in futility – will this GNEP effort really move forward given funding constraints and given the lessons learned at the nation's waste repository?

Boise: There are questions about whether the political will exists to see the GNEP through to fruition. Can Congress come up with the money needed to support such an effort, especially in light of the fact that Japan's new reprocessing facility cost roughly $30 billion? One stakeholder suggested evaluating other DOE projects to ensure that there is no duplication of effort. On another point (mentioned above), funding should be provided to boost Idaho's infrastructure in order to better support GNEP. This comment mostly focused on the need to establish a higher education research capacity in Idaho (but also kindergarten through 12th grade). Moreover, the state should seize the opportunity for teacher/professional development through learning experiences through GNEP. One stakeholder thought it was important to also include solar and wind power as part of that experience (go beyond nuclear).

15. The international scope of GNEP is not yet well defined

Idaho Falls: It was pointed out that global partnership is not occurring well enough and that other countries are significantly ahead of the United States in developing capability in this area.

Twin Falls: One stakeholder raised how GNEP is going to address proliferation with overseas partners.

Boise: Many felt that the international component of GNEP is vague and requires clarification.

16. Timing is off—some see the need to accelerate GNEP, while others want slower movement

Idaho Falls: One participant argued that we don't have time to wait. We are being left in the dust and need to move ahead with nuclear power. Another participant said that politicians move at their own pace and that timing isn't always perfectly aligned with science and urgency.

Twin Falls: The general schedule was reviewed—the AFCRF is expected to be built by 2016, the Nuclear Fuel Recycling will be completed around 2020, and the ARR is projected to be complete by 2021. The feeling in this group was that the timing couldn't be much improved. It was noted that the last commercial power plant built in the United States was in the late 1970s so it has been many years since the industry has been revitalized.

Boise: Although the GNEP research facility is planned first, there is some concern that DOE has the 'cart before the horse' in terms of schedule. One stakeholder thought there is not enough time between the building of the research facility and building of the other two GNEP facilities, four years later. There is not enough time for R&D, application of new concepts, and maturing technologies to be considered in the subsequent facilities. This individual felt that because there was a lack of complete confidence in the UREX+ process, more research is needed, which means there needs to be a longer time frame for the research facility to operate prior to building the other two facilities. Another stakeholder thought that DOE has a mistakenly optimistic schedule. Yet another felt that much research has been done on fast reactors and we don't need to do decades of more research to build this facility. Demonstrations are the way to answer these technology questions and Idaho is the place to tackle these questions. A few felt that timing and sequence of GNEP facilities require further thought and clarification.

New Themes

17. Utilities need to strongly participate

Idaho Falls: It was recognized that if new reactors are going to be needed to burn this newly-made fuel, then utilities are going to have to support GNEP and be willing to pay for these new generation reactors and to buy recycled fuel.

18. Better messaging to the public is needed

Twin Falls: One stakeholder listed the four primary issues that needed to be addressed in telling the story: (1) safety of the plants ensured; (2) potential environmental health effects managed well; (3) security to address proliferation concerns managed; and (4) benefits to Idahoans and the world (e.g., greenhouse gas reduction described). The INL site often does a poor job of marketing itself. It projects this image that "the world is against us" when in reality folks across the state actually support the work at INL. The site needs to be less reactive and much more proactive in telling its story. The story needs to include that there are no alternative major blocks of power, other than nuclear, that don't emit greenhouse gases. We really have no other options.

Boise: Stakeholders saw the need to shift the dialogue away from fear and towards solutions. There was a Boise State University survey conducted on energy alternative preferences that found more interest in nuclear than one would necessarily think.

Other Questions

19. Nuclear power options?

Idaho Falls: One participant asked what alternatives the United States really has in general concerning nuclear power. Another participant questioned whether the country should be limiting itself to GNEP as the best answer.

Boise: With respect to GNEP, the question was raised if DOE has done a good job of defining its contingency plans if GNEP does not move ahead? Stakeholders were also interested in knowing what the different frameworks look like for GNEP if it is sited at a DOE site versus a private site (e.g., Atomic City)? What additional oversight would there be of the latter? One stakeholder felt that the government should run this program and that we need to get on with it. "We need a better energy policy and lead globally."

20. Is seismicity an issue?

Idaho Falls: A question was raised about the seismic safety of the site.

21. Any connection between GNEP and the commercial nuclear power plant being proposed in a different part of the state?

Twin Falls: No; these are completely different initiatives.

(b) Focus Groups with Cross Sections of Citizens

Idaho Falls participants were enthusiastic about having the GNEP facilities at INL. All were familiar with INL. INL is such a large presence in Idaho Falls that all participants except one knew people who work there. They saw many good reasons to have GNEP at INL but also raised questions and concerns, primarily about the ability of the local infrastructure to support a population influx. Participants in Twin Falls and Boise expressed more ambivalence; the large majority in both locations supported the facilities at INL, but many did so with some reservations.

Main energy concerns raised by the focus group participants were the high price of gasoline, United States dependence on foreign sources of energy, and inefficient use of resources:

- *Idaho Falls:* Participants discussed over-dependence on fossil fuels, government inaction to find alternatives, the influence of big oil, the cost of transportation, and too many big cars.
- *Twin Falls:* Problems identified included the high price of gasoline, running out of resources, dependence on foreign oil, the need to conserve more, and not enough use of nuclear energy.
- *Boise:* Dependence on foreign oil, gas prices, and the need for alternative transportation fuels dominated the discussion of energy problems.

Overall reactions to information about GNEP were largely favorable:

- *Idaho Falls:* 17 out of 19 thought that GNEP is a good idea. The most appealing features were recycling the used fuel to make more electricity and reduce waste, reducing dependence on fossil fuels, having cleaner air, the idea of a global partnership, monitoring for peaceful uses, and the research component ("out of this should come new things"). One noted that we should not limit the search to one source but should keep up research on a mix of energy sources.

- *Twin Falls:* The first group felt unable to judge if GNEP is a good idea or not. In the second group, five out of seven were very favorable to GNEP. Main appeals included using less fossil fuels/less dependence on foreign energy, clean air, recycling used fuel to make more energy and reduce waste, monitoring to reduce misuse of nuclear materials, sharing power globally to help others, possibly lower prices of electricity, and the potential that GNEP might encourage completion of Yucca Mountain.
- *Boise:* Participants held mixed views about nuclear energy but most saw benefits in GNEP, including better control over how nuclear energy is managed worldwide, recycling the used nuclear fuel, less fossil fuel use, better life for other countries, planning for the future, and thinking outside the box.

Questions and concerns about GNEP were listed and discussed in all the groups. Main points included the feasibility or reality of GNEP and generic concerns about nuclear energy.

- *Idaho Falls:* Some questioned if there are sufficient funds and political will to make GNEP happen, if there would be sufficient public acceptance, whether big oil would fight it, and whether the political climate might change. Some wondered who runs GNEP, which countries might be involved and how their participation might affect the United States, what is the timeframe, how GNEP would make the world safer and reduce the risk of proliferation, and what are the costs if we do and do not go forward with GNEP.
- *Twin Falls:* Two participants focused on the dangers of nuclear energy and cancer rates and questioned why they hadn't heard about GNEP before. Others wondered which countries would be involved, who profits from GNEP (private company, the government?), whether the technology is known or still to be developed, how cost-effective nuclear energy would be compared with other sources, whether waste disposal is safe, how much waste would be transported, and what methods would be used to transport the waste. Many Twin Falls participants exhibited confusion about the characteristics of used nuclear fuel.
- *Boise:* Questions and concerns centered on the control of other countries (can the United States control other countries, and should the United States control others), as well as negative feelings about nuclear energy ("I know a bunch of people from the Ukraine who lived near Chernobyl; nuclear just gives me the heebie jeebies"), health concerns ("I think there is a risk for genetic effects; I have a child with Down's Syndrome"), and worries about the waste from the whole world coming to the United States.

Reactions to having one or more of the GNEP facilities at INL were most favorable in Idaho Falls.

- *Idaho Falls:* Participants in Idaho Falls expressed strong support for having GNEP facilities at INL and cited public acceptance. "We want it here." "I

think people would be very accepting of it. They are very familiar with nuclear; it's part of their lifestyle. Only a minute few would not accept it." In the general discussion, reasons given why the project should come to INL included help to the economy, existing expertise at INL with similar technologies, safety consciousness at INL, the remoteness of INL, and the need for new research tasks for INL. Participants also mentioned jobs and family ties, "Educate the kids and let them have jobs here, and families can stay together like in the olden days, I want my grandchildren to have jobs here, so they can stay close to home."

- *Twin Falls:* Twin Falls participants expressed mixed opinions about GNEP facilities coming to INL: some were highly enthusiastic, some negative, and others ambivalent. On the one hand, participants saw benefits to the economy and jobs and the potential for electricity generation and waste clean-up. They also cited INL's existing capability and the value of GNEP, "I'd like to see us utilize what we have and get those kinds of jobs, doing something great for the world." On the other hand, some were leery of an activity involving nuclear waste due to the history of "waste mismanagement" at INL (Cold War legacy), and some were uneasy about anything nuclear.
- *Boise:* Participants varied in their views about nuclear energy but most saw good reasons for having the GNEP facilities at INL including that INL already has similar facilities, the location is remote, waste would be reprocessed, and the project would boost the economy and bring jobs. In describing the remoteness of INL, one noted, "There is nothing out there. If something does go wrong, it might kill a couple of jackrabbits."

Specific questions and concerns were raised in each location, even by persons who supported having the facilities at INL.

- *Idaho Falls:* The main concern of Idaho Falls participants was that the infrastructure, including schools, would need to be improved to accommodate population growth: "Families are coming in droves, but the growth is coming in so quickly we can't keep up. It isn't being managed well. I worry about infrastructure because there are going to be more people." A couple of participants noted that growth would bring traffic and crime. One person expected that some people might be against the project because of the shallow aquifer and past history of leaks into the aquifer due to "lack of knowledge" at the time.
- *Twin Falls:* Questions were largely about waste. Will Idaho become a waste dump? Will the existing waste at INL be used for recycling? Will this help in any way with INL waste clean-up? Does nuclear waste contaminate water? Some worried about a Chernobyl-type accident or about effects in the future that cannot be predicted today. Some expressed a deep seated distrust of institutions and expectations that profit motive would take priority over safety.

- *Boise:* Members of one Boise group expressed a lack of understanding of used nuclear fuel. They asked what "it" is and what "it" does and said it would be difficult to form an opinion without knowing more. One noted, "I think there is too much we don't know about what it does. I don't think you are going to convince a lot of people that nuclear waste is anything other than nuclear waste." Some expressed concern about accidents and wanted to know how the facilities would be different from Chernobyl.

Each focus group was divided into two small groups and assigned two tasks. The first task was to write down "how you would describe GNEP in simple terms to a neighbor." All groups struggled with what GNEP is organizationally and ultimately came up with different statements (partnership, contract between nations, initiative, global initiative, U.S. government initiative, organization, agency, entity). After overcoming that hurdle, they had no difficulty stating GNEP goals including recycling and reducing waste, reducing misuse of nuclear materials/weapons growth, safeguards, using more nuclear energy, sharing nuclear energy, and benefits to energy security and to the environment.

Idaho Falls: four small groups' descriptions of GNEP verbatim:

1. A partnership or contract between nations to develop safe, reliable, affordable energy, safeguards in place, pluses reduce the waste, re-use the waste, reduce greenhouse gases, reduce imported oil. It is environmentally friendly and intended for non-military use.

2. Renewable energy, sharing global energy, the safety issue—taking the dirty rods and re-use them and make it safer and clean it all up.

3. Global initiative to control nuclear waste and proliferation.

4. Read the first paragraph in the basic GNEP four-page publication from the website and also said, we would tell our neighbor that it is a global initiative for safe expansion of nuclear power. Address the threat of proliferation without producing the same waste. Get more energy while controlling the plutonium, controlling where it goes. The alternative is that these countries can get these technologies from someone else.

Twin Falls: four small groups' descriptions of GNEP verbatim:

1. An initiative by the DOE to:
   - Expand use of nuclear power
   - Use technology to recycle/manage spent nuclear fuel and waste
   - Enhance proliferation resistant technologies and improve nuclear safety

2. Organization designed to create safe nuclear, reduce misuse of nuclear energy internationally.

3. GNEP is a global initiative to recycle nuclear waste—it seeks to share worldwide nuclear energy—control and regulation—make recycled waste less dangerous—keeps United States on top of innovation.

4. GNEP is a U.S. government initiative of the DOE to encourage new development of nuclear power while reducing risks to safety and the environment. The idea is to create an exportable nuclear energy, and thus it is global.

Boise: four small groups' descriptions of GNEP verbatim:

1. An organization to have a strategy to increase U.S. and global energy security—reduce the risk of nuclear weapon growth. To promote nuclear power technology. Technology to provide the expansion of clean and safe energy.

2. A neutral international agency that promotes global nuclear energy; recycles the energy while having less waste while at the same time being able to monitor the misuse of energy.

3. Global Nuclear Energy Partnership—The United States and other countries working on alternative energy.

4. Global entity with both countries and corporations focusing on increasing usage of nuclear power worldwide and making the power safer and more available worldwide, focusing on environment and global security.

The second task was to decide if the GNEP facilities should come to INL—yes or no. Most said yes.

Idaho Falls: four small groups' decisions on GNEP at INL and reasons:

1. Yes, it sounds reasonable:
   - A lot of space far from any city.
   - Existing technology, infrastructure, and expertise.
   - Nuclear started here.
   - People who live here are technology friendly/savvy.
   - Most people here would take it in with open arms.
   - Good for people who come here: recreation, reasonable real estate.
   - GNEP would bring more money for more research at INL.

2. Yes, INL should do it:
   - Existing facilities and people.
   - Good paying jobs.
   - Nice place to live: recreation, music, theater.
   - Engineering school as resource for people for GNEP.

3. Yes, have it here:
   - Boost the economy.
   - Increase local jobs.
   - INL needs a new big viable project, an infusion of dollars.
   - Boost diversity of education level of area. Raise expectation of level of performance for local school children.
   - The expertise is here.
   - Time is now to develop recycling of nuclear fuel.

4. Yes, these projects would be good for Idaho for these reasons:
   - Employment.
   - Money.
   - Prestige.
   - Continuation of facility use.
   - Experienced management and labor.
   - Education—children and grandchildren.
   - Growth of community and family ties.
   - Money.
   - Cycle of education and work.

Twin Falls: four small groups' decisions on GNEP at INL and reasons:

1. Split on whether having the projects at INL is a good thing or not. If it cleaned up the existing waste, we'd all agree on it. We can see it as an economic boom for the area. We have questions about safety.

2. Yes:
   - Existing facility.
   - Up to speed in dealing with things like that.
   - Investment made and not used.
   - Good for jobs at INL.

- More money coming to the state for advancing our schools, universities by being the hosting state.
- Cleaner energy.
- Recycling spent fuel reduces storage requirements.
- Global involvement with other industrial and developing countries—good to have them all on the same page.
- World population will share.
- More self sufficiency for the United States.
- Safer.
- Question: Can water be recycled too?

3. Yes, it's good for Idaho.
   - We have the trained workforce; we're on top of it; well established.
   - Already use waste at INL.
   - It would generate income for the state; economic benefit/jobs.
   - Less fossil fuel.
   - R&D to make nuclear a safe alternative.
   - Less air pollution.
   - Recycling spent nuclear product makes more energy, less waste.
   - Renewable type of energy; use it again.
4. A GNEP facility should come to INL, as long as the scientists at INL support it. (This group felt unqualified to make the decision and so left the decision to the scientists at INL).

Boise: four small groups' decisions on GNEP at INL and reasons:

1. No decision: too many unanswered questions concerning the waste, where it is coming from, how it is going to be transported.
2. Yes, with reservations:
   - Will happen anyway; we can't stop it, and Idaho is as good a place as any.
   - Reservations: how is it going to be transported?
3. Yes:
   - More jobs.
   - Cleaner air.
   - Recycling means less waste transportation.

- Idaho will be known as a leader in the global energy front.
- Bring more money to Idaho.

4. Yes, with one dissent:
   - Good for Idaho. It would boost the economy and provide jobs.
   - Idaho is a good location for these projects because of lower production costs and land availability.
   - Dissent: opposed to nuclear energy

At the end of the focus group discussions, an engineer from INL came into the room to answer questions. Participants asked many questions and showed great interest. In Twin Falls, a group continued to ask questions of the engineer outside the focus group room well after the session ended. Main topics and questions included:

- Organization of GNEP: who runs it, who profits from it, and what other countries are involved.
- Timeline for GNEP: when would construction begin and when would facilities be completed.
- Potential jobs and impacts on the economy.
- Impacts on health and safety, including water issues, radiation effects, and similarity of the facilities to Chernobyl.
- Waste issues: what is used nuclear fuel, how does GNEP affect existing waste/waste clean-up at INL, and what waste shipments would be required.

3.4 Synthesis of Key Themes and Messages Received from Stakeholders Concerning the Siting of GNEP at INL

Analysis of the key themes and messages resulting from the range of stakeholder discussions yields some qualitative insights about how GNEP might be received at an eastern Idaho location on the INL site. Those results are summarized below.

3.4.1 Overview

At the highest level, reactions of Idahoans to the concept of GNEP at INL focused on four elements:

- Policy issues such as questions related to the U.S. government's commitment to fund GNEP at the necessary level and for the necessary length of time to have it succeed, INL's nuclear research mission, nuclear energy as part of the national and global energy baseline, a decision to restart spent nuclear fuel reprocessing in this country, regional economic benefits, and—importantly—disposition of spent fuel and nuclear waste in Idaho today and in the future.
- Technical issues such as questions related to sources of nuclear fuel and water for GNEP, characteristics of wastes produced, size and configuration of facilities, need

for comparative risk assessments, nonproliferation and safeguards checks and balances based on the ability to monitor materials throughout the recycling process (i.e., availability of material to be diverted into making a dirty bomb or an actual nuclear weapon), transportation risks, and scale-up issues and types of reactors.

- Environmental issues such as questions related to protection of water resources, especially the sole source Snake River Plain Aquifer, and protection from other impacts on water and air resources, both at the site and where uranium is mined to feed increased nuclear energy production, and impacts to natural resources such as wildlife and plant communities at the site.
- Public awareness issues such as people's knowledge levels about nuclear technology, INL, and GNEP; challenges in helping people statewide understand GNEP and receive answers to their questions about how it would work in Idaho; necessity to engage institutions of higher education, local governments, business communities, and many other groups and people with transparent, open-to-dialogue interactions about GNEP and how it could affect Idaho.

3.4.2 Geographic Distinctions

Stakeholders provided diverse viewpoints, but also stressed many of the same points in outreach across the state. There were some geographic differences among the similarities, summarized below.

In discussions with stakeholders in the Idaho Falls area, including Pocatello and northwest Wyoming, they tended to:

- Reflect greater familiarity with INL's history, mission, and operating track record, and generally a higher level of comfort with continuing that mission by hosting GNEP facilities. Many indicated that increasing Idahoans' familiarity with INL activities and safeguards could increase public confidence.
- Identify issues that were likely to be of concern to others, including the two or three interest groups that have traditionally been opposed to INL practices and new mission activities, and Idahoans who are not so familiar with the lab. Interviews with Snake River Alliance and Keep Yellowstone Nuclear Free and one other individual did result in a list of concerns that placed these interviewees in opposition to GNEP facilities in Idaho, including conformance with the Idaho Settlement Agreement and treatment/storage/disposal of resulting waste products.
- Fear that GNEP may not receive full DOE and Congressional support and resources to become a reality, based on other facilities that were potentially slated for INL but did not materialize.
- Recognize the critical nature of addressing the waste that would result from and remain from GNEP operations, in terms of its characteristics, volumes, toxicity, and especially the plans for its storage and disposition on a firm timeline.
- Hope that the Idaho Settlement Agreement would not be a barrier to bringing GNEP to INL, and believe that an accommodation could be negotiated that would recognize the congruence of GNEP's research focus with INL's lead research laboratory status.

- Support the jobs, community resources, professional and family diversity, and status that would accrue to Idaho Falls and the state with the location of technologically advanced GNEP facilities.
- Support the concept of providing new, cleaner energy sources, reusing nuclear fuel to its fullest potential, and breaking dependence on foreign oil.
- Believe that some people will confuse Chernobyl and Three Mile Island with GNEP, assuming that the risks are too great. Some suggested a coalition of knowledgeable spokespersons who could help the public understand the goals, operations, and safeguards of the GNEP facilities.
- Recognize concerns about environmental protection that exist broadly in the state, focused especially on protection of water resources and relating to past site practices that raised questions about contamination of the Snake River Plain Aquifer. People will also question impacts of increased uranium mining, potential for airborne contaminants, and other environmental questions.

In the Twin Falls area, which included interviews in Jerome and Hailey, discussions with stakeholders tended to:

- Express somewhat less familiarity with INL and its operations, based on increased distance from the site, though many interviewees expressed confidence in INL capabilities. Express some concern about past DOE mistakes such as contamination of the sole source aquifer, and their efforts at community outreach and telling the story about INL.
- Bring up a recent coal-fired power plant project in the Magic Valley that was opposed broadly by the public, based on concerns about water quality protection, air quality, and the transmission of the resulting power out of Idaho. Believe that nuclear power may be a good complement to the national baseline energy picture, and believe that it is consistent with the INL mission.
- Value the agricultural resources in the area highly, and need good information about how GNEP facilities could potentially affect those resources.
- Support the economic benefits that GNEP would bring to the region, and the diversification of energy sources, as well as the potential to fully use nuclear fuel and reduce the waste produced.
- Question the import of spent nuclear fuel to Idaho, and waste products resulting from GNEP operations, in terms of how long they would remain, how a path certain to disposal out of state could be ensured, and how the effort would comply with the Idaho Settlement Agreement.
- Suggested a major emphasis on providing transparent, understandable public information in many formats that will help people understand risk, economic benefits, environmental and radioactive safeguards, and other elements of GNEP.

Finally, in the Boise area, stakeholder discussions tended to:

- Believe that there will be significant support for GNEP and the continuation of INL's nuclear research mission throughout eastern and southern Idaho, especially from

business, high-technology organizations, educational institutions, and local governments.

- Expect that a few anti-nuclear groups, specifically the Snake River Alliance, will oppose GNEP facilities. Other sectors of the public may be supportive, but will need substantial information and clear answers to their questions to be confident about GNEP. Snake River Alliance, specifically, sees GNEP not as recycling spent fuel but as traditional reprocessing of spent fuel, and raises concerns about costs, technology, waste, pollution, nuclear weapons proliferation, and making such a major national policy shift to restart reprocessing.
- Recognizing that Yucca Mountain is not yet open, Idahoans are concerned about bringing in spent fuel to Idaho, producing more waste, and not having a clear timeline and plan for getting it out of Idaho. This may be an area of negotiation in a potentially revised Settlement Agreement.
- See that compliance with the Idaho Settlement Agreement will be an issue, but is likely to be negotiable (or not, based on a few interviewees who see it as a clear barrier).
- Consider nuclear energy part of the full complement of energy sources, along with alternative energy sources; believe that alternative energy sources such as wind and solar can supply some of the need, but not nearly all of it.
- Believe that it is challenging to disseminate information and have dialogue across Idaho, but believe that people need to understand and have an opportunity to support GNEP possibilities.
- Support economic development benefits from GNEP facilities, and recognize the opportunities for broadening economic benefits, public-private partnerships, and high-technology developments from INL and GNEP research and development.

3.5 Outreach Program Summary and Conclusions

It was concluded that people of Idaho care deeply about their state and regions within it, and see GNEP as possibly affecting many key elements – the economy and economic opportunity, the environment and precious natural resources, the intellectual brain trust represented by INL and complementary high-technology activities within the academic and business communities, and the health and wellbeing of their diverse communities. They want clear information, they want to understand the benefits and drawbacks, and they want to be confident that GNEP facilities could be developed, operated, and ultimately decommissioned, safely.

Outreach activities included interviews and meetings with a broad cross section of Idahoans with varying economic, cultural and ethnic backgrounds. The outreach activities placed emphasis on including people across the GNEP opinion spectrum from very negative to very positive. A concerted effort was made to capture all areas of concern, questions and comments (both positive and negative).

From our interviews, workshops, and focus groups, it was concluded that the majority of Idahoans support GNEP. Support was strongest in and around the INL and its communities. In the Twin Falls and Boise areas support was still strong yet not as strong. A very small minority

strongly opposed GNEP. This group typically has historically not supported nuclear related programs of any kind. There is a larger minority who were extremely supportive of GNEP. This group typically has historically supported nuclear related programs of all kinds. In between these two groups there was generally support for GNEP, with a small portion slightly negative to neutral, and almost all in the middle (negative to positive) wanting more information. Many middle of the spectrum supporters of GNEP have areas of concern and questions about the program that need successful resolution to maintain continued support. Most in this middle group are expecting the future resolutions and answers to be satisfactory. This underpins current support.

It was concluded that the GNEP materials used in the outreach activities were satisfactory for this stage of the program. This is evidenced by and documented in the interviews in Appendix C. As was expected at this stage, there are questions and areas to be addressed.

Table 3-3 below summarizes thematic areas and questions heard in the outreach activities:

Table 3-3 Summary of Thematic Areas and Questions

INL knowledge and confidence are particularly high in the Idaho Falls area. Increasing the visibility throughout the remainder of the state about the INL mission and track record, and how GNEP facilities fit with that mission, is recommended.	Scaling up research facilities to production facilities is seen as a significant challenge. Information and dialogue on how that would be done, how it would be monitored and communicated, would be helpful to public confidence in decision making.
People clearly believe that the nation and world are overly dependent on fossil fuels. GNEP can be part of the solution to that dependency. Nuclear energy is seen as a technology that might add to the national and international energy portfolios. The public needs information about safety, waste management, non-proliferation safeguards, and other areas to bolster GNEP support.	Historic INL economic benefits are understood and appreciated in Idaho. Communities further away from Idaho Falls would appreciate consideration and definition of increasing the distribution of those benefits. Analysis, communication, and delivery of any resulting benefits more broadly would strengthen support for GNEP.
More information on the global nature of GNEP, from both policy and technical perspectives will help. People want to know who is involved and what the U.S. role would be in relation to other specific countries – what does a global partnership mean? Utility participation is also a question.	Information and dialogue are needed about concerns raised by the organizations that oppose the GNEP concept at this stage. Issues raised are: pursuing different alternative energy sources; avoiding commercial-scale nuclear operations at INL; and changing national reprocessing policies.
Yucca Mountain remains an area of uncertainty for Idahoans in terms of ultimate disposition of GNEP waste materials. Strategies for completing that effort and progress on that front should be communicated promptly and completely to help people gain confidence in the life-cycle issues of waste disposal outside of Idaho.	How GNEP facilities could be developed and operated in Idaho in relation to the Idaho Settlement Agreement will be important in understanding differing perspectives and reaching resolution of what commitments can be made in terms of GNEP operations and waste disposal.

Table 3-3 Summary of Thematic Areas and Questions (continued)

As GNEP facility details become more defined, Idahoans will welcome information and discussion about facility characteristics and operating procedures. Idahoans are particularly interested in details about processes, facility characteristics, safety, non-proliferation provisions, and other technical issues.	Regulatory requirements must be met fully, in consideration of potential environmental impacts from GNEP, with focus on water and airborne contamination potentials, water supply, seismicity, and other environmental priorities important to Idahoans.
Addressing greenhouse gas emissions needs to be fleshed out in more detail to allow people to understand and support GNEP's role in reducing emissions.	Addressing questions on funding and commitment to GNEP is an area that will benefit the GNEP program support in Idaho.

Two key areas bear additional emphasis:

- To enhance GNEP progress in Idaho, a much better public understanding is needed about waste management implications – how the waste from the current once-through fuel approach compares to that from the GNEP recycled approach. Idahoans want to understand waste characteristics and risks – waste volumes, toxicity, radioactivity, planned waste forms, storage plans, shipment plans, and ultimate disposal plans. In addition, policy commitments about how and when imported spent fuel and resulting wastes would leave Idaho are very important.
- A related area is establishing the relationship of GNEP in Idaho to the Idaho Settlement Agreement. Whether people support GNEP or not, they believe that questions must be answered about whether the Settlement Agreement affects DOE's ability to import spent fuel for GNEP operations, what the requirements would be for removing waste products, and what facilities can be expected to exist out of Idaho for ultimate disposal of waste products.

Recognizing the significant level of Idaho support that exists for continuing to explore GNEP possibilities, the RDA team recommends that efforts to increase public understanding about GNEP's possibilities and issues continue unabated as the PEIS is completed. These efforts should address the questions and concerns that have been expressed and will continue to develop. Idahoans understand the possibilities, they are committed to INL's mission and its future, and they are equally committed to doing the right thing for any new development in their state.

4.0 Conclusions and Recommendations

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Regulatory Program Conclusions

The GNEP facilities can be sited at INL from a regulatory and permitting perspective as supported by the detailed information provided in Section 2. There are no regulatory constraints or prohibitions that would prevent siting and operating the GNEP facilities at INL. The required permits are typical of permits that have been obtained for existing and past facilities at INL. Review and issuance of the required permits would not be considered unusual or extraordinary by the regulators. With appropriate coordination between GNEP project personnel and the regulators, the regulators can provide efficient and timely review of GNEP permit applications.

The Idaho Settlement Agreement is not viewed by the RDA team as an impediment to siting and operation of the GNEP facilities in Idaho. Based on informal discussions, it is believed that the GNEP facilities could be constructed and operated at INL in keeping with the spirit and intent of the Settlement Agreement, although the State of Idaho may wish to negotiate a supplemental or additional agreement governing the management and disposition of wastes resulting from the operation of the facilities.

High-quality, site-specific environmental characterization and monitoring information is available to satisfy the majority of license and permit application needs. RDA's scope for this effort excluded updating siting data; however, the review indicates there is comprehensive data and the data is of high quality and relatively recent. In the few cases where more current information may be needed by the regulator, it should be readily and easily obtainable on a normal schedule to support the GNEP project. Section 2.0 discusses the permits and regulations, applicability related to the GNEP facilities, timing for permits, and the status of existing relevant permits and regulations. From this information it is concluded that quality data is either already available or could easily be developed and updated to successfully site the GNEP facilities at INL.

4.2 Outreach Program Conclusions

Section 3 gives a detailed account of the outreach activities conducted and the input received from a broad cross section of community and government leaders across Idaho, as well as a valid sampling of the general public. Strong support for pursuing GNEP facilities exists. Supporters value the economic opportunities, the augmentation and continuation of Idaho's highly technical research history, and the ability to contribute to solving national and international problems of clean energy and non-proliferation. They see opportunities to leverage the GNEP program to add to the growing high-technology climate in Idaho, in areas of business, health, and education. Confidence in INL is generally strong and knowledge about nuclear issues is exceptionally high due to decades of experience with INL activities.

Most people, though generally supportive, have a range of questions they will want answered as GNEP siting moves forward. They include:

- Facility details, including operational characteristics, physical features, safety, scale-up requirements, non-proliferation provisions, and other technical issues.

- Environmental information and regulatory requirements, including GNEP requirements for water and potential impacts on Idaho's environment, such as airborne and waterborne contaminants, seismicity, etc.
- Waste management, including details on waste products produced by the GNEP processes, requirements for storage and disposition, and the timeframe for moving waste out of Idaho in the future.
- Whether or how GNEP development might be affected by the terms of the Idaho Settlement Agreement with the Department of Energy in relation to bringing commercial spent fuel into the facilities for processing.
- Understanding the details of how GNEP would reduce greenhouse gas emissions and contribute to a cleaner energy profile for the U.S. and internationally, including understanding participation of the private sectors and other countries' governments.

There were concerns raised by a few community leaders that characterize the opposition to GNEP facilities at this point in the process. A small group of historically anti-nuclear organizations raised issues of pursuing different alternative energy sources instead of nuclear sources, avoiding commercial-scale nuclear operations at INL, not moving rapidly to change overall U.S. policy on spent nuclear fuel reprocessing, and generally opposing new nuclear operations at INL. Discussions with the local tribal government resulted in many of the same questions. Of special interest to the tribal government is the transportation of spent fuel and waste materials over or near their reservation.

Successful GNEP development in Idaho will require continuing information sharing and dialogue about these questions, and a transparent process for understanding and addressing public questions and issues as they arise. With that dialogue and continuing identification and resolution of issues, there is a broad base of support likely from the majority of people engaged in this process.

4.3 Recommendations

Regulatory Permitting and Licensing

Detailed siting data will be needed in order to support EIS development for the GNEP facilities. RDA would like to lead the effort to provide the Department of Energy with the specific siting data needed for the EIS. The scope of work negotiated for the current 90 day effort precluded development of this data since the INL selected location already has significant data from previous characterizations. Some of this data needs to be reviewed and made current for GNEP. As part of the current team, BEA has high quality data that can be gathered and quality assured for the INL site. The team as currently formed, is organized and well positioned to develop the specific siting data needed.

Outreach General

Effective communications with community leaders and outreach to the general public are crucial elements to mobilize support for the GNEP project. A critical component of successfully siting, building, and operating GNEP facilities in Idaho will be to continue the liaison established in this initial 90 day study and to implement consistent and effective public stakeholder

communication and outreach strategies that foster a strong base of private and public participation in the GNEP mission.

The extensive stakeholder interest in GNEP observed to-date demonstrates the need for DOE to continue a dialogue with public officials, government agencies, community groups, educators, business leaders, media leaders, and the public at large. It is critical for DOE to proactively respond to concerns, issues, and information requests on an on-going basis. Ideally, public outreach strategies should include more proactive initiatives to supply emerging information; thereby, fostering a broad base of public opinion, governmental, and political participation in proposed GNEP strategies.

An extensive outreach program should be designed proactively to work with all major media outlets to ensure that they have the information they need to clearly describe GNEP to the general public, including what the economic benefits are to Idaho for bringing such a program to the state. Visuals need to be produced that well describe the process and, in particular, the residual waste products (amount, characteristics, and management plans) in comparison with the current system.

Open, transparent dialogues need to continue throughout the region to answer any remaining questions people may have. Knowledgeable, credible, third-party spokespersons are recommended as deliverers of the message. As more information becomes available, it needs to be disseminated broadly.

The RDA team recommends that efforts to increase public understanding about the GNEP project continue unabated as the PEIS is completed, recognizing the significant level of support that exists for continuing to explore GNEP possibilities, accompanied by the many questions and concerns that have been expressed.

RDA initiated the prospect of siting the GNEP facilities at the Idaho site, and many in the community view RDA as having a responsibility to the community for continuing dialog. The RDA team believes that it is best positioned to help DOE with this important GNEP objective for the Idaho site option.

RDA recommends that the following specific elements of work be performed:

Liaison with Regional Government Officials

Support DOE to maintain an on-going liaison with regional government officials related to GNEP matters. This support will include the following:

- Establish a series of periodic meetings and update bulletins specifically for State and local governments of the region. Having a close relationship with these various offices, RDA is in an ideal position to communicate with them and provide the appropriate frequency and level of detail to maintain good relations on behalf of GNEP.
- Assist DOE by summarizing and grouping the expected large volume of feedback, questions, and concerns from regional governments and public agencies.

- Assist DOE in facilitating future PEIS activities requiring input from local government.

Identify and Communicate New Concerns and Questions to DOE

Support DOE in collecting and responding to emerging questions, concerns, and input regarding GNEP. This will include documenting new GNEP-related questions, requests for information, concerns, issues, or suggestions from stakeholders.

Monitor and Supply New Information to All Stakeholders

Monitor GNEP sources of information, and supply vetted emerging information on GNEP and PEIS results to interested stakeholders, including environmental and conservation groups, governmental agencies, educators, business leaders, and the media as it becomes available. Specific activities will include:

- Maintain current GNEP and PEIS information on the RDA website (www.rdaidaho.org), with appropriate links to GNEP and DOE internet information sources. Based on questions received during the community outreach activities, organize the questions, vet answers, and communicate the answers effectively via the web or other means.
- Provide quarterly written updates of GNEP progress and PEIS status (mail or e mail) to entities participating in stakeholder outreach events during the 90 day siting study.
- Conduct periodic meetings and speak to community groups on the topic of GNEP status.
- As appropriate to the level of community dialogue, the GNEP program should develop additional materials and responses that address issues broadly heard from stakeholders. Simple terminology, heavy use of graphics and photographs, and attention to understandability are recommended. For example, the public has little knowledge about spent fuel and how it is formed, packaged, and shipped. Pictures, videos, and other user-friendly communication materials can help address those concerns. Another example that was often raised related to waste products. New waste product information materials may be appropriate, which could help people understand resulting waste volumes, characteristics, and safeguards, as well as the timeline for ultimate disposition. Safety requirements and safeguards, such as the role of the International Atomic Energy Agency, could be described and set forth as well. Also of interest to stakeholders is more information about how GNEP is organized and the partnerships that will be involved.

Attend Applicant Meeting(s)

Finally, it is recommended that DOE conduct one or more status meetings involving all site study applicants to discuss issues, progress, policy and budgetary support, and additional insight/information from communities coming out of the PEIS process.

In conclusion, the RDA team recommends that DOE continue efforts in GNEP regulatory permitting and outreach activities. RDA stands ready to support the DOE in these or other activities as needed to make GNEP a reality at the INL.

5.0 Acronyms and Definitions

5.0 ACRONYMS AND DEFINITIONS

ABR	Advanced Burner Reactor (now referred to as Advanced Recycling Reactor [ARR])
AFCRF	Advanced Fuel Cycle Research Facility (not a part of this RDA siting study as are the ARR and NFRC—this is a third facility/center in the broader GNEP program; also referred to as AFCF, Advanced Fuel Cycle Facility)
ARR	Advanced Recycling Reactor
BEA	Battelle Energy Alliance
CFA	Central Facilities Area
CFR	Code of Federal Regulations
CFTC	Consolidated Fuel Treatment Center (now referred to as Nuclear Fuel Recycling Center)
COL	Combined Operating License (Combined Construction Permit and Operating License with Conditions)
CP	Construction Permit
DC	Design Certification
DOE	Department of Energy
DOT	Department of Transportation
EBR	Experimental Breeder Reactor
EDE	Effective Dose Equivalent
EIS	Environmental Impact Statement
EPA	U. S. Environmental Protection Agency
ER	Environmental Report
ESP	Early Site Permit
FCNP	Fundamental Nuclear Control Plan
FNMC	Fundamental Nuclear Material Control
GNEP	Global Nuclear Energy Partnership
GTCC	Greater Than Class C
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDWR	Idaho Department of Water Resources
IFSI	Independent Fuel Storage Installation
INL	Idaho National Laboratory (also previously INEL, INEEL)
ISMS	Integrated Safety Management System
LLW	Low Level Waste
LWR	Light Water Reactor
mrem	Millirem (unit of dose)

MWth	Mega Watts Thermal
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFRC	Nuclear Fuel Recycling Center
NMSWLF	Non Municipal Solid Waste Landfill
NP-MHTGR	New Production–Modular High Temperature Gas Cooled Reactor
NPDES	National Pollutant Discharge Elimination System
NPR	New Production Reactor
NRC	Nuclear Regulatory Commission
OL	Operating License
PEIS	Programmatic Environmental Impact Statement
PMF	Probable Maximum Flood
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PUREX	Plutonium and Uranium Recovery by Extraction
RCRA	Resource Conservation and Recovery Act
RDA	Regional Development Alliance (Idaho Falls)
ROD	Record of Decision
SAMDA	Severe Accident Mitigation Design Alternative
SAR	Safety Analysis Report
SPCC	Spill Controls Countermeasures (Plan)
TAP	Toxic Air Pollutants
TMI	Three Mile Island
TRU	Transuranc (as in transuranic waste)
UREX	Uranium Recovery by EXtraction

6.0 References

6.0 REFERENCES

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APPENDICES

Appendix	Subject
A	Appendix A − Community Outreach Briefing Materials
B	Appendix B − Interview Protocol and Guide
C	Appendix C – One on One Interview Summaries

Appendix A – Community Outreach Briefing Materials

Appendix A – Community Outreach Briefing Materials

Table A-1 Briefing Materials Used as Part of the Outreach Program

Item	Description	Used As
1	Project-specific prepared, duplex-printed "Commonly Asked Questions" sheet	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach events; Questions more specific to local concerns.
2	Single-Sided Facility Summary Sheet	Brief for initial one-on-one stakeholder interviews; outlined types of proposed facilities.
3	Four page DOE-prepared GNEP Summary Sheet	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach events.
4	One page DOE-prepared "Potential Locations" single-sided fact sheet	Brief for initial one-on-one stakeholder interviews and for follow-on community outreach events.
5	DOE-prepared "Dear Interested Party" duplex-printed letter	Brief for initial one-on-one stakeholder interviews.

Regional Development Alliance, Inc.
East Idaho's Partner in Growth
Serving Bannock, Bingham, Bonneville, Butte, Custer, Jefferson and Madison Counties

Some common questions about the Global Nuclear Energy Partnership

What is GNEP?
The Global Nuclear Energy Partnership is the first totally new concept in worldwide nuclear energy planning in a generation. It recognizes first – that many nations either already have or want to have the abundant, always-there electricity made possible by nuclear power systems. And in response to that worldwide involvement and interest, GNEP provides the globally agreed-to framework to guide how and where new nuclear power systems and support facilities are built and operated.

GNEP also provides for a "closed energy loop" as opposed to the "open energy loop" of fossil energy-burning power plants where only a small percentage of the potential energy in fuel is tapped, and the unconsumed fuel residue is considered waste that is either buried (e.g. fly ash from coal) or released into the air (carbon dioxide, hydrocarbons and oxides of nitrogen from all fossil fuels). The closed energy loop made possible by GNEP recycles used fuel from nuclear power systems to pull out the maximum potential energy contained in nuclear fuel. The closed loop ultimately takes fuel and runs it through a special reactor that converts it to a waste form requiring management for only a few hundred years – a much shorter period of concern than, for instance, the mercury wastes from coal-fired power plants.

How is GNEP different from earlier nuclear energy policies and programs?

- First, it's truly international in its development and implementation.
- Next, it offers a safe, highly efficient "closed energy loop."
- Additionally, it offers a technological means to make nuclear material misuse – such as for terrorist purposes – highly unlikely.
- And finally, it creates a true partnership between governments and private industry across the globe to share in the technology development and deployment required to make GNEP a reality.

What kinds of facilities could be built in Idaho in support of GNEP?
While absolutely no decisions have yet been made on where any GNEP structures will be built, the Department of Energy envisions three necessary facilities: **a nuclear fuel recycling center**, which would separate the used fuel into its reusable components and waste components and manufacture new nuclear fuel using reusable components; an **advanced recycling reactor**, which would eliminate long-lived radioactive elements in the new fuel while also generating electricity; and an **advanced fuel cycle research facility**, which would perform research into used fuel recycling processes and other aspects of advanced nuclear fuel cycles.

Why did the Regional Development Alliance propose a site in Idaho for GNEP?
The RDA was set up by the state of Idaho to serve as the economic development and diversification liaison to the U.S. Department of Energy in the late 1990s. Its assigned role is to look for ways to maintain and improve the economic vitality of the seven eastern Idaho counties most affected by the historical operations of Idaho National Laboratory which has been a part of the economic fabric of the region for nearly 60 years. When the Energy Department invited regions and regional organizations across the country to help identify possible sites for GNEP demonstration facilities, the RDA saw both the economic benefit and the extraordinary fit with the legacy expertise of INL…and decided to help with the siting study.

Is the RDA pursuing this study alone, or is it working with someone else?
The RDA is leading this study, but has turned to other organizations with special expertise in site evaluation matters to help. Supporting RDA is Idaho's own Washington Group International, along with Battelle Memorial Institute, Areva and INL.

When will we know if DOE sees Idaho as a good location for the GNEP facilities?
The fact that eastern Idaho already made the "short list" of 13 sites across the country where further study is warranted seems to be a positive sign. According to the DOE process being used, the public scoping period now under way will continue through early April. A draft programmatic environmental impact statement will then be developed sometime this summer…and it could, but doesn't have to identify a preferred site or sites. A final programmatic environmental impact statement is expected by spring 2008 and it will contain the DOE's preferred alternative. The Department will then announce its record of decision – something expected in the summer of 2008. The bottom line, Idaho won't really know how we stack up against the other sites until 12-15 months from now.

Doesn't Idaho have some sort of agreement barring this type of work?
You're probably referring to the 1995 Settlement Agreement. While the agreement sets firm dates by which specific cleanup milestones have to be reached and bars the storage of commercial used nuclear fuel, no where does it suggest national priority nuclear research and development work cannot be conducted in Idaho.

What could this mean for Idaho?
Beyond any direct economic impact, being selected for any or all of the three anticipated GNEP facilities would do much to reinforce INL's long-held position as the nation's pre-eminent nuclear energy research, development and demonstration laboratory. It could mean leading scientists and engineers from around the world coming to Idaho to perform cutting-edge research that would do much to put Idaho on the map as a preferred high-tech business destination. And while the economics still have to be worked out, it's expected that the capital costs of the three facilities will run into the billions of dollars, with hundreds, if not thousands, of construction and ongoing research and operations jobs being created in the process.

WORKING DRAFT – EXEMPT FROM DISCLOSURE

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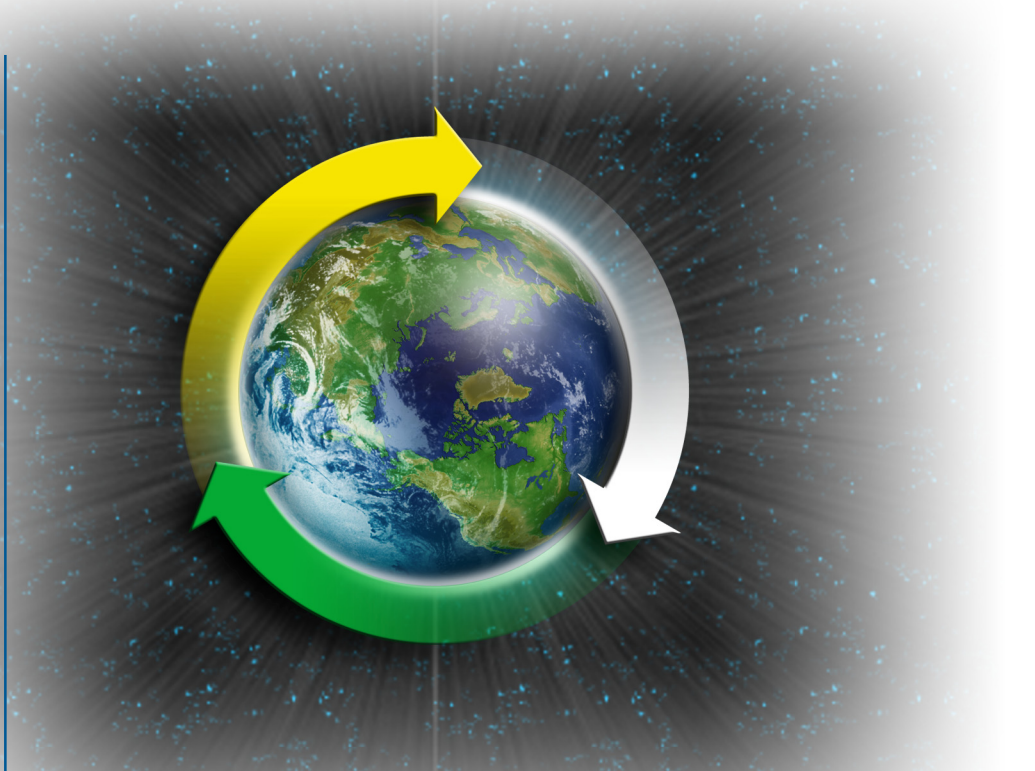
SUMMARY OF THE THREE KEY FACILITIES ENVISIONED UNDER GNEP			
	Nuclear Fuel Recycling Center	Advanced Recycling Reactor	Advanced Fuel Cycle Research Facility
What would it do?	- Separate commercial spent nuclear fuel into reusable and non-reusable constituents (EIS will evaluate separations technologies proposed by consortia teams) - Produce fuel for use in an advanced recycling reactor	- Accept recycled nuclear fuel and use it to generate electricity - Reduce waste by consuming more transuranic elements than it creates as it operates. - Transmute (convert) transuranic elements into shorter-lived isotopes - Extract energy from all types of uranium and all transuranic isotopes.	- Perform research into spent fuel recycling and other aspects of advanced nuclear fuel cycles - Support R&D to develop fast reactor transmutation fuel, which could destroy transuranic elements
Who would own it?	- Could be privately owned and operated, potentially with government-supplied incentives or other involvement yet to be determined.	- Could be privately owned and operated, potentially with government-supplied incentives or other involvement yet to be determined.	- DOE would design, build and operate at a DOE site
What would site suitability require?	- Onsite storage of commercial spent fuel before recycling and waste resulting from recycling - No legal impediments to siting / operation in host state - Elements may be considered individually or in any combination - Public acceptance	- Onsite storage of spent fuel generated by the advanced recycling reactor - No legal impediments to siting / operation in host state - Elements may be considered individually or in any combination - Public acceptance	- Elements may be considered individually or in any combination - Public acceptance



The Global Nuclear Energy Partnership (GNEP) seeks to expand the use of clean, affordable nuclear energy to meet the growing worldwide demand for energy.

The Global Nuclear Energy Partnership

The Global Nuclear Energy Partnership (GNEP) is a comprehensive strategy to increase U.S. and global energy security, reduce the risk of nuclear proliferation, encourage clean development around the world, and improve the environment.

A plentiful, reliable supply of energy is the cornerstone of sustained economic growth and prosperity. Nuclear power is the only proven technology that can provide abundant supplies of base-load electricity reliably and without air pollution or emissions of greenhouse gasses.

GNEP provides for the safe expansion of clean, affordable nuclear power to meet the growing worldwide demand for energy and encourage the growth of prosperity around the globe.

GNEP is both a major research and technology development initiative and a major international policy partnership initiative. It addresses the two key barriers to full development of nuclear power in the later half of the twentieth century: how to use sensitive technologies responsibly in

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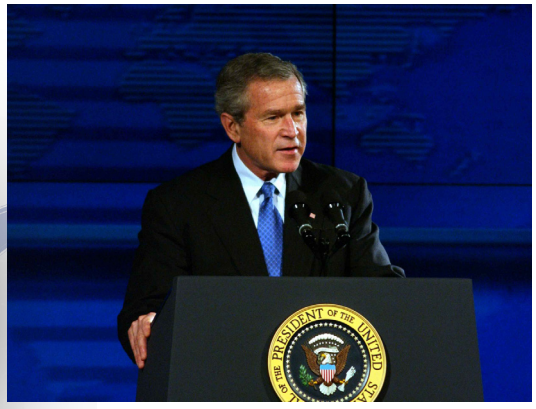
United States Department of Energy



"The world must create a safe, orderly system to field civilian nuclear plants without adding to the danger of weapons proliferation."

President George W. Bush
National Defense University
February 11, 2004

"To build a secure energy future for America, we need to expand production of clean, safe nuclear power."

President George W. Bush
Ronald Reagan Building
June 15, 2005

The Global Nuclear Energy Partnership (GNEP)

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a way that protects global security and how to dispose of the waste safely. GNEP focuses on overcoming these barriers, and doing so in cooperation with other advanced nuclear nations, to bring the benefits of nuclear energy to the world safely and securely.

President Bush has requested $250 million in the Department of Energy's 2007 budget as the initial step to accelerate technology development as part of GNEP. The Department has requested funding from Congress to continue developing the structure for a collaboration among industry, the U.S. national laboratories, and other nations to meet the goals of GNEP. Such a collaboration would build on the existing, proven capabilities of industry and the fuel cycle nations to bring commercial-scale, advanced fuel cycle technologies into operation in the U.S. as quickly as possible.

The Global Nuclear Energy Partnership aims to:

- **Recycle nuclear fuel using new proliferation-resistant technologies to recover more energy and reduce waste** The U.S. is considering a new approach to recycling of spent nuclear fuel with advanced technologies to increase proliferation resistance, recover and reuse fuel resources, and reduce the amount of wastes requiring

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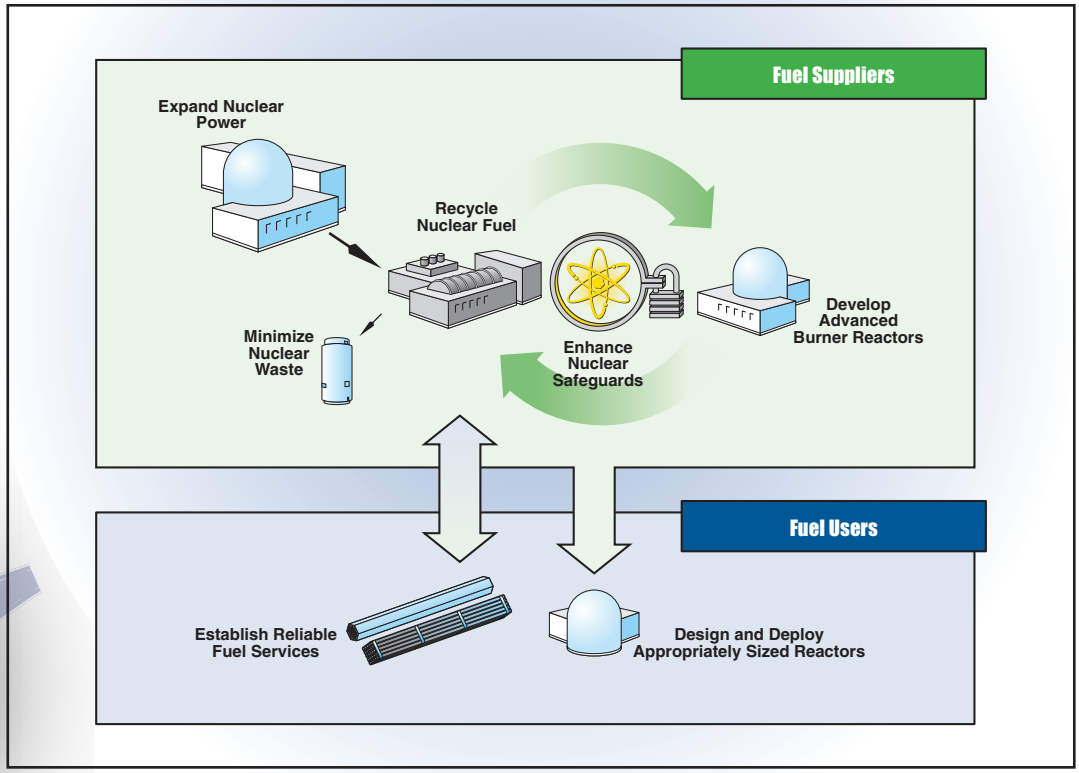
The Global Nuclear Energy Partnership focuses on expanding nuclear power and establishing partnerships between fuel suppliers and fuel users.



United States Department of Energy

The Global Nuclear Energy Partnership (GNEP)

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permanent geological disposal. This work builds on the Department's Advanced Fuel Cycle Initiative, which has been researching innovative recycle concepts since 2000.

- **Utilize the latest technologies to reduce the risk of nuclear proliferation worldwide**
  By promoting proliferation resistant technologies and providing fuel services to developing nations, GNEP will bring the benefits of nuclear energy to the world safely and securely without all countries having to invest in the complete fuel cycle – that is, enrichment and reprocessing.
- **Encourage the growth of prosperity and sustainable development around the world**
  By increasing the availability of electricity through nuclear power, millions of people will experience an improved and sustainable quality of life.
- **Reduce use of fossil fuels**
  Nuclear power addresses concerns associated with the use of fossil fuels: rising costs, price volatility, increasing worldwide demand and air pollution.
- **Improve the environment**
  Nuclear power is the only currently available technology capable of delivering large amounts of power without polluting the air. Last year, the operation of U.S. nuclear power plants displaced 681.9 million metric tons of carbon emissions.

The Global Nuclear Energy Partnership includes a broad implementation strategy:

- **A new generation of nuclear power plants in the U.S.**
  GNEP will build on recent Administration accomplishments to encourage more nuclear power in the U.S. These include the Nuclear Power 2010 program, a public-private partnership aimed at demonstrating the streamlined regulatory processes associated with licensing new plants, and the Energy Policy Act of 2005, which includes federal risk insurance for the first new nuclear power plants to be built.
- **An integrated U.S. recycling capability**
  The U.S. is pursuing the transition from a once-through fuel cycle to a new approach that includes recycling of spent nuclear fuel without separating out pure plutonium. Specifically, recycling would comprise uranium extraction plus (UREX+).

  Research has shown that UREX+ can separate uranium from the spent fuel at a very high level of purification that would allow it to be recycled for re-enrichment, stored in an unshielded facility, or simply buried as a low-level waste. In addition, long-lived fission products, technetium and iodine, could be separated and immobilized for disposal in Yucca Mountain. Short-lived fission products, cesium and strontium, could be extracted and prepared for decay storage until they meet the requirements for disposal as low-level waste. Finally, transuranic elements (plutonium, neptunium, americium and curium) separated from the remaining fission products could be fabricated into fuel for an Advanced Burner Reactor, a fast reactor. Fast reactors would consume or destroy the transuranics, reducing the need for disposal in Yucca Mountain. This approach would increase the effective capacity of the geologic repository by an estimated factor of 50 to 100.

  The Department is investigating the interest and ability of industry to deploy an integrated recycling capability consisting of two facilities:

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United States Department of Energy

The Global Nuclear Energy Partnership (GNEP)

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- A Consolidated Fuel Treatment Center, capable of separating the usable components contained in light water spent fuel from the waste products.
- An Advanced Burner Reactor, capable of consuming those usable products from the spent fuel while generating electricity.

U.S. national laboratories would design and direct a third component, the Advanced Fuel Cycle Facility, a modern state-of-the-art laboratory designed to serve fuels research needs for the next 50 years.

- **An aggressive plan to manage spent nuclear fuel and nuclear waste in the U.S., including permanent geologic disposal at Yucca Mountain**
  Successful demonstration of GNEP technologies will change the characteristics and, potentially, significantly reduce the toxicity of spent fuel and nuclear waste to be disposed of in Yucca Mountain. This will make disposal less complex and potentially extend the capacity of Yucca Mountain for generations to come.
- **A reliable fuel services program**
  Under GNEP, a consortium of nations with advanced nuclear technologies would provide fuel and reactors that are appropriately sized for the grid and the industry needs of other countries that agree to refrain from fuel cycle activities. By participating in GNEP, developing nations can enjoy the benefits of clean, safe nuclear power while minimizing proliferation concerns and eliminating the need for expensive infrastructure investments. In cooperation with the International Atomic Energy Agency, participating nations would develop international agreements to ensure reliable access to nuclear fuel.
- **Grid-appropriate reactors**
  GNEP would call for a program to design, build and export nuclear reactors that are cost effective, well suited to conditions in developing nations and scaled for small electricity grids. The U.S. is cosponsoring with the International Atomic Energy Agency (IAEA) and several IAEA member states a workshop in Vienna, Austria, Dec. 4-6, 2006.
- **Improved nuclear safeguards to enhance the proliferation-resistance and safety of expanded nuclear power**
  A basic goal of GNEP is to make it nearly impossible to divert nuclear materials or modify systems without immediate detection; thus, an international safeguards program is key to every element of its implementation. The U.S. will continue to work closely with the IAEA and our international partners to ensure that civilian nuclear facilities are used only for peaceful purposes.

Issues for the introduction of nuclear power:

The U.S. has heard from a number of countries expressing interest in adding nuclear power to their energy mix to meet energy demands and increase energy security. There are a few experienced countries with developed nuclear power programs that have a responsibility to share their expertise on legal, regulatory, safety and security cultures pertaining to the incorporation of nuclear power.

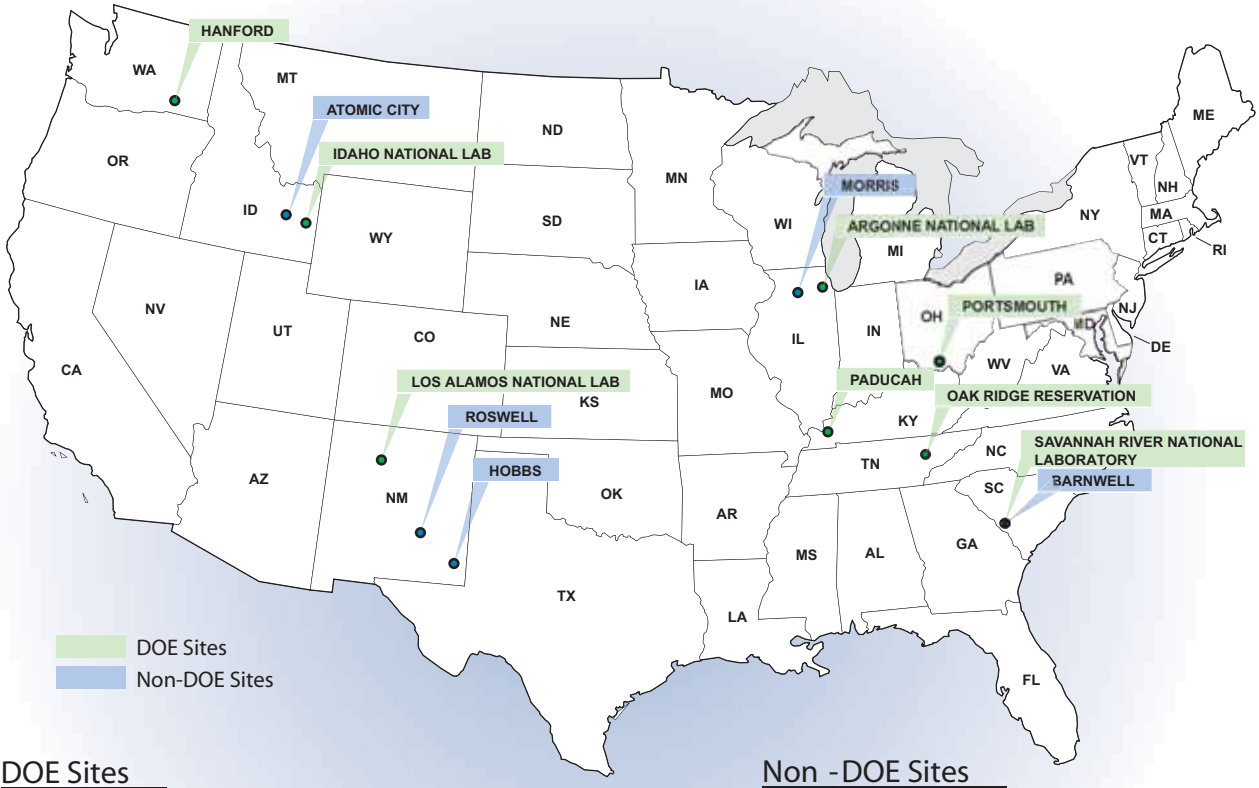
United States Department of Energy

06-GA50506-01

The Global Nuclear Energy Partnership (GNEP)

Potential Locations for Facilities Planned Under GNEP

Based upon responses to DOE's Funding Opportunity Announcement (FOA), and an assessment of DOE sites, the following sites will be assessed in the PEIS to determine potential locations for the facilities planned under GNEP:



DOE Sites

- Argonne National Laboratory (Illinois)
- Hanford (Washington)
- Idaho National Laboratory (Idaho)
- Los Alamos National Laboratory (New Mexico)
- Oak Ridge Reservation (Tennessee)
- Paducah (Kentucky)
- Portsmouth (Ohio)
- Savannah River National Laboratory (South Carolina)

Non -DOE Sites

- Atomic City, Idaho
- Barnwell, South Carolina
- Hobbs, New Mexico
- Morris, Illinois
- Roswell, New Mexico

United States Department of Energy

For further information contact:

Mr. Timothy A. Frazier at: GNEP PEIS Document Manager Office of Nuclear Energy, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0119, Telephone: 866-645-7803, Fax: 866-645-7807, or e-mail to GNEP-PEIS@nuclear.energy.gov

U.S. Department of Energy

Global Nuclear Energy Partnership

April 13, 2007

Dear Interested Party,

I would like to inform you that the United States Department of Energy (DOE), Office of Nuclear Energy (NE) is announcing its intent to prepare a Programmatic Environmental Impact Statement for the Global Nuclear Energy Partnership (hereafter, GNEP PEIS). The scoping process is an opportunity for the public to assist DOE in determining, among other things, reasonable alternatives and issues for analysis. Public scoping meetings will provide the public with an opportunity to present comments, ask questions, and discuss issues regarding the GNEP PEIS with DOE officials.

Domestically, GNEP involves a programmatic proposal as well as project-specific proposals. The programmatic proposal is to recycle spent nuclear fuel (SNF) and destroy the long-lived radioactive components of that SNF. Toward this end, GNEP includes project-specific proposals to construct and operate three facilities: a **nuclear fuel recycling center**, which would separate the SNF into its reusable components and waste components and manufacture new nuclear fuel using reusable components; an **advanced recycling reactor,** which would destroy long-lived radioactive elements in the new fuel while generating electricity; and an **advanced fuel cycle research facility,** which would perform research into SNF recycling processes and other aspects of advanced nuclear fuel cycles.

At this time, DOE contemplates that the PEIS will consider 13 sites as possible locations for one or more of the proposed GNEP facilities. Eleven of these sites were selected based on responses received regarding the Funding Opportunity Announcement (http://www.energy.gov/news/4492.htm). Two additional DOE sites have been preliminarily identified as possible locations for the DOE-directed advance fuel cycle research facility.

GNEP also includes two international initiatives: 1) ensure reliable fuel services, in which the United States would cooperate with countries that have advanced nuclear programs to supply nuclear fuel services to other countries that refrain from pursuing enrichment or recycling facilities to make their own nuclear fuel; 2) the United States would promote the development of proliferation-resistant, modular nuclear power reactors suitable for use in developing economies.

The public scoping period began with the publication of the Notice of Intent (NOI) in the Federal Register on January 4, 2007, and will continue for 90 days. The locations, dates, and times for the public scoping meetings are as follows:

This PEIS is being prepared and considered in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, regulations of the President's Council on Environmental Quality (40CFR parts 1500 through 1508), and DOE's National Environmental Policy Act Implementing Procedures (10CFR part 1021).

Proposed GNEP PEIS Scoping Meetings

Date: February 13, 2007
Oak Ridge, Tennessee
DoubleTree Hotel
215 South Illinois Avenue
Time: 6:00-9:30pm

Date: February 15, 2007
North Augusta, South Carolina
North Augusta Community Center
495 Brookside Avenue
Time: 6:00-9:30pm

Date: February 22, 2007
Joliet, Illinois
Barber Ober-Wortmann Horticultural Center
227 North Gougar Street
Time 6:00-9:30pm

Date: February 26, 2007
Hobbs, New Mexico
Lea County Event Center
5101 N Lovington-Hobbs Hwy
Time: 6:00-9:30pm

Date: February 27, 2007
Carlsbad, New Mexico
Pecos River Village Conference Center
Carousel House
711 Muscatel Avenue
Time: 9:00am-12:30pm

Date: February 27, 2007
Roswell, New Mexico
Best Western Sally Port Inn & Suites
2000 N. Main Street
Time: 6:00-9:30pm

Date: March 1, 2007
Los Alamos, New Mexico
Hilltop House Best Western
400 Trinity Drive (at Central)
Time: 6:00-9:30pm

Date: March 6, 2007
Paducah, Kentucky
Executive Inn Riverfront
One Executive Boulevard
Time: 6:00-9:30pm

Date: March 8, 2007
Piketon, Ohio
Ohio State University Endeavor Center, Room 160,
1862 Shyville Road
Time: 6:00-9:30pm

Date: March 13, 2007
Pasco, Washington
Red Lion Hotel
2525 N. 20th Avenue
Time: 6:00-9:30pm

Date: March 15, 2007
Idaho Falls, Idaho
Red Lion Hotel on the Falls
475 River Parkway
Time: 6:00-9:30pm

Date: March 19, 2007
Washington, D.C.
Hotel Washington
15th and Pennsylvania Ave, NW
Time: 1:00-5:00pm

If you would like to request any additional information please contact me at: Mr. Timothy A. Frazier GNEP PEIS Document Manager, Office of Nuclear Energy, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0119, or via telephone: 866-645-7803, Fax: 866-645-7807, or by e-mail at GNEP-PEIS@nuclear.energy.gov. Additional information on GNEP may be found at www.gnep.energy.gov.

Sincerely,

Timothy A. Frazier
GNEP PEIS Document Manager

Appendix B – Interview Protocol and Guide

Appendix B – Interview Protocol and Guide

B-1 – Interview Protocol Used in One-on-One Interviews

- Thanks for granting the interview, introductions, purpose of the RDA proposal and interviews, and confirmation of receipt of information materials and interview format
- Basic technical overview of GNEP, including need for the program, constituent facilities, potential advantages, reasons for considering Idaho, and process for site selection (based on information materials)

  Question 1: With this overview, what questions do you have for us? (listening for technical, environmental, infrastructure including transportation, values, and policy in areas of regulatory, schedule, costs)

  Question 2: What concerns or issues do you have?

  Question 3: What do you think the public's reaction is going to be?

  Question 4: What do you think might be done to mitigate those concerns?

  (If you hear a concern) Is there anyone else who we should be talking to who could provide us a better understanding of this issue?

  Question 5: What additional information would you like to have to decide whether eastern Idaho would be an appropriate location for GNEP?

  Question 6: Which materials we provided were most useful to you and how could we improve them?

- Closing, committing to capturing their feedback and emailing summary to them for review; synthesizing all interviews as basis for discussion at community outreach workshops on April 3, 4 and 5; invitation to participate in those workshops and polling of most convenient time of day
- Indication that overall results will be included in a report to DOE, with specific names and organizations maintained as confidential
- Thanks and invitation to contact interviewer if questions or other ideas arise

B-2 – Focus Group Discussion Guide

- Welcome and introductions.
- First on the subject of energy. What do you see as the most important energy problems facing the world today?
- How do you see these energy problems affecting the quality of life in the world?

- **Hand out 4-page description of GNEP from GNEP Web Site.** Please read this description of the Global Nuclear Energy Partnership known as GNEP. After you have read it, we'll talk about it.
- What's your overall reaction to GNEP? Good idea or not a good idea? Reasons?
- Do you see ways that GNEP addresses the energy issues we talked about or not? How does it address global energy issues?
- **Point to two easel pads.** We'll list good things about GNEP on this easel pad and bad things or questions and concerns on this other easel pad.
- What good things do you see about GNEP? What benefits do you see GNEP providing?
    - **Summary list on easel pad paper**
- What downsides or questions or concerns do you have about GNEP?
    - **Summary list on easel pad paper**
- **Hand out RDA statement and locations.** Here is some more information. Again, please read these information pages and then we'll discuss what they say.
- Had you heard anything about this project before tonight? What had you heard?
- As you see, 13 sites are competing for GNEP facilities. Do you see any reasons why the facilities should go to Idaho National Laboratory?
- Do you see any reasons for the facilities not going to INL?
- What benefits do you see for the people of this area in having the facility here?
- What disadvantages do you see for the people of this area in having the facility here?
- Do you think that Idaho National Laboratory's mission and expertise are well suited to this project or not? Reasons?
- What questions or concerns would you have if Idaho National Laboratory were selected and the facilities came here?
- Divide into two groups. Assignment: 1) Tell us in simple terms how you would describe GNEP to your next door neighbor and 2) Decide whether the GNEP facilities should or should not go to Idaho National Laboratory and give reasons for your opinion. Please list your group's main points on your easel pad. You have 20 minutes to complete the assignment. Then you will present your points to the other group.
- Discussion after each group presents its explanation.
- Any other points you would like to make about GNEP?

THANKS!

Appendix C – One on One Interview Summaries

Appendix C – One On One Interview Summaries

Table C-1 Guide to Individual Interviews

No.	Interviewee	Interviewer(s)	Date	Page
25	Leading Educator, Southeast Idaho	Gretchen Hund and Teri Ehresman	2-26-2007	C-47
26	Leading Educator, Southeast Idaho	Gretchen Hund and Teri Ehresman	2-27-2007	C-49
27	Leading Educator, Pocatello	Pat Serie and Gretchen Hund	2-28-2007	C-50
28	Leading Educator, Boise	Pat Serie and Marilyn Whitney	3-1-2007	C-52
29	Leading Educator, Southern Idaho	Teri Ehresman and Wendy Green Lowe	3-1-2007	C-54
30	Leading Educator, Boise	Gretchen Hund and Emily Boerner	3-2-2007	C-56
31	Leading Educator, Southern Idaho	Teri Ehresman and Wendy Green Lowe	3-5-2007	C-58
32	Leading Educator, Twin Falls	Emily Boerner	3-26-2007	C-60
33	Local Elected Official, Pocatello	Pat Serie and Wendy Green Lowe	2-27-2007	C-62
34	Local Elected Official, Pocatello	Pat Serie and Wendy Green Lowe	2-27-2007	C-63
35	Local Elected Official, Southeastern Idaho	Teri Ehresman and Wendy Green Lowe	2-28-2007	C-65
36	Local Elected Official, Idaho Falls	Teri Ehresman and Wendy Green Lowe	2-28-2007	C-66
37	Local Elected Official, Pocatello	Teri Ehresman and Wendy Green Lowe	3-1-2007	C-67
38	Local Elected Official, Twin Falls	Teri Ehresman and Wendy Green Lowe	3-5-2007	C-68
39	Media Business Leader, Idaho Falls	Gretchen Hund and Teri Ehresman	2-27-2007	C-70
40	Media Business Leader, Boise	Gretchen Hund and Emily Boerner	3-1-2007	C-72
41	Media Business Leader, Twin Falls	Teri Ehresman and Wendy Green Lowe	3-5-2007	C-73
42	State Government Official, Boise	Gretchen Hund and Emily Boerner	3-1-2007	C-75
43	State Government Official, Boise	Gretchen Hund and Emily Boerner	3-2-2007	C-76
44	State Government Official, Retired, Idaho Falls	Wendy Green Lowe	4-12-2007	C-77
45	State Representative	Marilyn Whitney	3-14-2007	C-79
46	Tribal Government Leaders	Wendy Green Lowe (accompanied by Bob Pence, DOE-ID)	4-18-2007	C-81

(Above sorted first by major category and then interview date within category)

INTERVIEW SUMMARY

Interviewee: Business and Media Leader, Idaho Falls
Interviewers: Gretchen Hund and Teri Ehresman
Date: 2-27-2007

Overall reactions to concept of GNEP:

Very in favor of seeing this happen. Would like to see it in Idaho but what is more important is that it happens somewhere quickly. Time is of the essence. INL is a unique site because of not having a dense population nearby but yet having the S&T community to support it. He is glad about the proliferation issues being reduced with the GNEP approach in managing the plutonium and using it up as fuel.

Overall concerns:

Timing. Program is not on a fast enough track. He thinks that the only way GNEP is going to be successful is if the Al Gore's of the world become advocates of this approach. They need to be partners. Capital needs to be spent building these relationships, partnerships, and coalitions. "We can not be lackadaisical about the need to do this coalition building." He has spent a lot of effort testifying for DOE to bring programs to Idaho Falls and the region has not been successful in seeing them come.

Expected public reactions:

The public confuses Chernobyl and Three Mile Island issues and design with GNEP and thinks that they are all the same. These failures will continue to be used to give nuclear power a bad name. The other big issue is managing the waste. He thinks that the recycling aspect of GNEP is great at addressing much of the waste issue. Transportation is an issue for some but not others. Bringing in fuel rods from all over the US to Idaho could be a problem for some. Jackson Hole is THE vocal community where efforts need to be spent to see if a majority of them can be reasonable. Again, we need to have a spokesperson who is trusted and admired by the activist communities to communicate the advantages of GNEP. Interviewee argued for the importance of having the 3 university Presidents coming out with a united voice, strongly supporting GNEP. They need to be very vocal and build a fire under the communities with this message.

What could help better inform the public about GNEP?

Coalition building – having spokepersons who are trusted getting the word out.

Feedback on briefing materials:

He found the fact sheets useful and did not see any additional materials being needed.

Other people who should be engaged:

Jackson, Wyoming community needs to be engaged. He asked about the lobbying that was going on with Congress. Who is knocking on Nancy Pelosi's door? This needs to be a huge part of the promotional effort.

Availability for workshop:

He thinks that he would be available on April 3.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, Idaho Falls
Interviewers: Pat Serie and Teri Ehresman
Date: 2-26-2007

Overall reactions to concept of GNEP:

He is highly supportive; his organization exists to pursue this type of scientific and technological future for eastern Idaho. They see nuclear energy as environmentally friendly, as a replacement for fossil fuels and to reduce carbon dioxide emissions, and he thinks the benefits of GNEP for waste reduction and non-proliferation are significant. Energy use in the world is projected to at least double; conservation just won't make a significant reduction in demand. Meeting significant energy use growth is a priority. He has been discussing the projects in presentations to groups and will continue to do so.

He believes that the research facility would be of most benefit to Idaho, but thinks any or all of the three components would do well here. Idaho has the infrastructure and the expertise to do this well.

Overall concerns:

The project can expect two primary questions. What are the employment and economic benefits to the community? If nuclear fuel is recycled, when will the remaining waste leave the state? He is concerned that the private sector will work hard to identify a concept that works, and that is accepted, but that Congress may not provide needed funding. DOE should carefully consider the community support for the facilities as it makes its site decisions.

Expected public reactions:

See questions above. He does not expect waste transportation to be a big issue except for groups/people who are anti-nuclear. People around Idaho Falls generally support INL; business will be supportive; agriculture may be neutral. DOE will have to provide a timetable for when remaining waste and spent fuel will leave the state; he expects the governor to ask for that.

Keep Yellowstone Nuclear Free may be concerned about the proposal; they are not likely to endorse any nuclear project.

They were very actively in opposition to earlier DOE projects in the area, and outweighed localized public support. Expect a strong showing of anti-nuclear activists on March 15.

It may be possible for DOE to work with the Shoshone-Bannock tribes to help them understand potential benefits, such as access to clean energy technologies and jobs. They can be expected to be concerned about transportation of nuclear fuel across the reservation.

What could help to better inform the public about GNEP?

People will want to know about how much water is needed for the reactor; water rights issues are possible with the Twin Falls area. People will want to know about facility safeguards against plane crashes, terrorist acts, etc. Pollution of the Snake River Plain Aquifer is a concern to many, and will come up in regard to GNEP. Lab employees should be interested in terms of future lab mission.

Feedback on briefing materials:

He found the fact sheets helpful.

Availability for workshop:

He is interested and available; schedule is open.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, Idaho Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 2-28-2007

Overall reactions to concept of GNEP:

Very supportive based on the potential positive economic impact. He thinks nuclear is the future and that Idaho Falls has a long, storied history of supporting the development of nuclear energy. It is our legacy and should be our future. GNEP would be good for Idaho, for southeast Idaho, and for Idaho Falls. There will be many positive impacts. We need to move forward with nuclear and to return to reprocessing. It makes sense. It is important for international security. Idaho is the lead lab for nuclear energy and GNEP fits with that role. This community understands DOE. The lab has done a good job of educating the public and the public is supportive in return.

Overall concerns:

Idaho has the Settlement Agreement and other DOE communities play that against us. Its really not fair. We just have in writing what they expect will happen in their communities. But it may put us at a disadvantage.

The Settlement Agreement might prove to be challenging but he thinks there is potential to work it out. "We need to work it out." Most people support the lab and its missions. DOE and the contractors have made good on the Settlement Agreement, kept their word and lived up to the commitments in the agreement. It hasn't been easy but they have lived up to it.

Expected public reactions:

The anti-nuclear crowd – Snake River Alliance and Keep Yellowstone Nuclear Free – will express their concerns. They are concerned about the aquifer. But he is confident GNEP can be constructed and operated in a manner that will be protective of the aquifer.

What could help better inform the public about GNEP:

People need to understand why GNEP is needed. They need to understand what is being proposed. They need to understand how it would effect the global picture. Also, how it would effect the community.

Feedback on briefing materials:

It is not possible to have too much information for the public. Short, understandable material is best for most people. Others need more extensive, in depth material. Both sorts of materials should be made available.

Locally – materials need to focus on "why here."

There needs to be straight information about the potential negative impacts. Not talking about the issues and challenges and what might go wrong gives fodder to the naysayers. It gives them the opportunity to make up that side of the story using their own "facts."

Availability for workshop:

Available. Morning is best. He has a standing conflict on Tuesdays at noon. He would like to attend.

INTERVIEW SUMMARY

Interviewee: Business Development Leader
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

GNEP is a great opportunity for the State of Idaho. The time is right and it is time to move on. GNEP needs to be framed within the business context. Energy independence is important. This project would be important regardless of where it is located.

The Twin Falls area is accustomed to thinking regionally. If GNEP is located at INL, there will be plenty of benefit to spread around. People here get it that it's a good idea to think regionally. For example, Twin Falls does not have a lot of water. Burley and Jerome have excess water. He doesn't go after businesses that need a lot of water, but encourages them to locate in Burley or Jerome. What is good for the region is good for everyone.

Overall concerns:

None.

Expected public reactions:

The biggest hurdle to overcome is the public perception that when something goes wrong involving nuclear, the results are catastrophic. A lot of people are unfamiliar with nuclear and they have heard about Chernobyl and Three Mile Island. In addition, they understand that there are problems dealing with the associated wastes.

Another challenge is that the only thing we have been hearing about for a long time is the cleanup program. People know that the site used to be a leader in developing nuclear energy, but they haven't heard about that for a long time. He felt that when Linda Baird no longer served as a public affairs liaison to the community of Twin Falls, the community lost its ability to understand what was going on at the site. Its been a long time since they heard about anything except cleanup.

Snake River Alliance has a lot of visibility in Twin Falls. Bill Chisolm is well known.

Rational people will support this effort. Nobody wants to see any more dams. Water is a touchy subject in Idaho. Waste must be handled properly and aquifer protection must be a priority.

The recycling concept is appealing. We should be using the fuel more fully. He likes the fact that there will be less waste as a result of this initiative, that recycling diminishes the amount that will be left to be taken care of.

The region recently saw an initiative to build a new coal-fired power plant get defeated by a new environmental group. They didn't question the need for energy – they just couldn't support a coal burning plant. The opposition was lead by Representative Sharon Block and her husband Bill, an engineer. A related result is a moratorium on building new coal-fired power plants in Idaho.

Those folks that defeated the coal plant might have been able to support a nuclear power plant.

GNEP includes plans for a way to produce nuclear power with less waste. We are smarter than we were before.

There will continue to be skepticism about the effects of INL on the aquifer. Linda Baird helped people trust the INL – but now that she is gone, that trust has eroded.

What could help better inform the public about GNEP:

Make the information materials as simple as possible without allowing the impression that you are hiding anything.

Write materials for a business audience. Explain the positive effects that GNEP would have on the economy, what this would add to our communities.

Feedback on briefing materials:

They look pretty good. They answered his questions.

Availability for workshop:

Would like to attend. Cannot do lunch on Wednesdays.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-1-2007

Overall reactions to concept of GNEP:

Reacted positively to the GNEP concept, and thinks that we need to broaden our approach to energy in the U.S. We need more than wind and solar panels given their limitations, and nuclear power can help us avoid some of the environmental ills associated with traditional coal burning.

Overall concerns:

Would like to know more about any safety concerns (mainly managing the waste) from GNEP.

Expected public reactions:

Thinks that the public will mostly support the effort. However, "water is the beginning, middle and end of the conversation." Waste handling will also be of public concern.

What could help to better inform the public about GNEP?

Economic development is always the card to play. Ensure that we focus on the program, its advantages and opportunities.

Feedback on briefing materials:

Well put together.

Availability for workshop:

Available on April 5th – open all day.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, statewide
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-2-2007

Overall reactions to concept of GNEP:

He is a proponent of GNEP and has been working on an alliance endorsement of GNEP through the Rexburg Chamber. Believes that the future looks bleak without the development of nuclear energy and has been frustrated that it has taken so long to get GNEP concept to move forward. He feels that we should not handcuff DOE from giving us the best solutions. He is not fearful that we are opening ourselves up to other nations building nuclear weapons and feels that other nations can be controlled. Feels that waste being transported into Idaho is an acceptable risk.

Overall concerns:

Can a research and development facility go to Atomic City given that the site would be privately owned and operated?

The vocal few seem to get more press than the silent majority (one word from Snake River Alliance is worth ten).

Settlement Agreement – feels that someone will need to talk to Phil Batt even though he feels that it was not necessary to alarm all Idahoans to a problem that did not exist. Thinks that the Settlement Agreement could be negotiated.

Expected public reactions:

Thinks that the attitudes toward INL in the Magic Valley have changed in recent years and that there is less opposition to site activities. Need to get reasonable people together to decide on a path forward for energy. He thinks the dairy industry is getting more grief than most for polluting the Snake River Plain Aquifer but its likely just years of farming in the region that is responsible for low-levels of nutrients.

Thinks that endorsement will come loudly from Idaho Falls and more quietly from Boise, but that reaction will be mixed in Twin Falls, but overall positive. Believes it is important to get older people on board than the young ones since the younger generation already understands energy needs and the need for nuclear power.

What could help to better inform the public about GNEP?

No feedback when asked.

Feedback on briefing materials:

None offered when asked.

Availability for workshop:

April 5th – available all day.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, Central Idaho
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-5-2007

Overall reactions to concept of GNEP:

Guarded support.

Overall concerns:

Public safety. She has friends who have died recently who were convinced they were sickened by exposure to radiation resulting from tests at the Nevada Test Site. She believes them.

Quality of Life. Energy should be low cost and should not impinge on the existing healthy environment.

Expected public reactions:

She thinks the public would have the same concerns as she does. She said many will already have an opinion and would not even reconsider anything nuclear based on health concerns.

There is conflicting information. Information associated with this initiative should be information that can be verified. In addition, it should honestly address what is not known.

What could help better inform the public about GNEP:

Take community leaders on a tour. Let the science talk for itself.

It might be good to form a community advisory committee. They could represent a cross section of the community and involve regular citizens. They could help share information with the broader community and help make sure citizens have access to good information.

Feedback on briefing materials:

None (she had not reviewed them yet)

Availability for workshop:

She is interested and available. Noon or evening would be better.

INTERVIEW SUMMARY

Interviewee: Business Development Leader, Twin Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-5-2007

Overall reactions to concept of GNEP:

Mixed reactions based on knowing that nuclear is the "way of the future" but concerned about the nuclear aspect. GNEP would mean money and jobs and movement away from reliance on fossil fuels. The research would be good for the nation. However, there is a great deal of suspicion in the Magic Valley regarding concerns about negative impacts on groundwater, which is very important to their economy.

In response to his question about the map of potential locations, we discussed the Energy Solutions proposal for Atomic City. He expressed a great deal of concern about the possibility of GNEP being on private ground. He thought a company driven by profits would not have the best interests of Idaho at heart and they would cut corners that would compromise safety and environmental protection. In particular, he would be a lot more concerned about the potential impacts on the aquifer if GNEP were to be sited on private land.

Overall concerns:

His biggest concern is potential contamination of the aquifer.

Expected public reactions:

The Snake River Alliance will be opposed. They will base that position on information that is different from the information that is provided by the site, and their information is alarming. They are seen as being extremist – but they present a compelling argument. DOE doesn't do as well as it could at presenting its own case. He believes that concerns about nuclear are valid and that more research is probably needed.

He suspects that "the true story lies somewhere in the middle."

He believes that GNEP would be good for Idaho, but only if actions are taken to be protective of the environment. He has confidence that the site will be protective on the environment.

What could help better inform the public about GNEP:

This project will need a lot more exposure to gain support. The media should be used to help get the word out. A lot more people will need to know a lot more about what is proposed if the expectation is that the public will be supportive of this initiative. All materials should highlight how the project would be protective of the environment. Information needs to be available using mechanisms other than the Internet – not everyone has access to email.

Feedback on briefing materials:

The materials should be more customized for Idaho. They present about the right level of technical detail, although a shorter, summary piece would probably work better for the general public. A one-page flier could help raise awareness.

Availability for workshop:

He is interested and willing to attend. He would be available in the morning or at noon.

INTERVIEW SUMMARY

Interviewee: Business Leader, Idaho Falls
Interviewers: Pat Serie and Teri Ehresman
Date: 2-26-2007

Overall reactions to concept of GNEP:

Supportive of the concept of GNEP helping solve problems of finding alternative fuels, slowing climate change, and the need to responsibly manage residuals from nuclear power. He is pleased with the concept of expanding INL's mission; he feels it is an excellent facility, well run, and it has his confidence to do additional work responsibly. He sees use of nuclear energy in countries such as Germany, France, and Japan; the U.S. has not embraced it as enthusiastically. Infrastructure is available to support GNEP facilities, and the concentration of scientists and technical resources is a plus. He was curious about the other proposal in Idaho, the Atomic City site pursued by Energy Solutions.

Overall concerns:

Eastern Idaho has a strong sense of community, as does Idaho Falls and the lab. There may be some groups and people who object to the GNEP facilities on principle, and will not be open to dialogue. There is also the question of what to do with the waste products once the recycling cycle is complete. With Yucca Mountain being held up, and the political strength of Nevada officials, there will be questions about where remaining waste will be taken. Long-term storage and ultimate waste disposition will definitely be issues; people must be satisfied that materials will be safe in storage. But he feels this has to be resolved; fuels are being used, and need to be handled.

He also is concerned about providing some definitive regulatory/permitting process, so businesses will commit capital to the projects. Regulatory oversight needs to be thorough, but consistent, or investors will not step forward to fund new facilities. Regulatory uncertainty is a reason there have been no new nuclear power plants.

The Settlement Agreement is an unknown in this process, but shouldn't be allowed to hold it up. Some accommodation should be possible within the Settlement Agreement; changes to it should not need to be required for GNEP.

He also has questions about scaling up the facilities. If research is done at a test scale, that's fine, but will it work when scaled up to full size?

Expected public reactions:

He expects most Idaho Falls residents to support GNEP; they realize we need alternatives to fossil fuels, and that we as a society have been avoiding options too long. Solar, wind, etc. are non-controversial, but can't do the entire job. Nuclear is what is left. He is concerned about how local groups may respond; they may not listen and engage in dialogue. The Snake River Alliance may be open to discussion; Keep Yellowstone Nuclear Free has not been open to dialogue.

What could help to better inform the public about GNEP?

He doesn't think the projects would be seen as major long-term job producers. People will coalesce to study and research, then go back to build recycling facilities in other, dispersed

places. Though construction jobs will be a short-term benefit, long-term results are most important, such as adding research capability to do other things in the long run.

It may help the public to understand if the project portrays the effects of energy shortages on manufacturing, jobs, and the overall economy. Nuclear is part of the mix to handle increasing energy needs; ignoring that will result in unemployment and a languishing economy.

Feedback on briefing materials:

He found the fact sheets helpful. One-page formats are helpful. Seeking media coverage might be a good idea for the program.

Other people who should be engaged:

Suggested Chamber of Commerce, people in the arts community, public television.

Availability for workshop:

He is interested and available; schedule is open; breakfast is usually easiest.

INTERVIEW SUMMARY

Interviewee: Business Leader, Idaho Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 2-28-2007

Overall reactions to concept of GNEP:

Very supportive. He believes that nuclear will be "the solution" in years to come. He said we will start experiencing power shortages in years to come and they will limit our community's ability to grow.

Other energy sources like dams have limited potential. It would be very inefficient to use natural gas for energy. Conservation won't solve our power needs. There is a need for moving in the direction of developing the capacity for the next generation of nuclear power. Power is something that we take for granted. Nuclear energy is all over the world. Chernobyl and Three Mile Island provided opportunities for us to learn. We need to do research to perfect nuclear.

Nuclear addresses global warming issues as well. He reported having visited the Columbia glacier in Canada three times over about 25 years – and the visible recession of over one mile in the glacier. He believes global warming is occurring from that experience. Continued reliance on fossil fuels is not a good idea. We need a non-fossil fuel solution.

Idaho Falls recently passed a bond to support construction of a coal-fired power plant. The community was very supportive of that as a way to assure our future power needs. But it would have been "more consistent with our heritage" if we had invested in a nuclear power plant.

A long term view is necessary for sound policy making. He expressed that he doesn't have a lot of confidence that this will really happen. Idaho has the legacy of being the premier nuclear research facility. We need to demonstrate that nuclear can be safe. We have 60 years experience of protecting the environment.

He mentioned the EBR-II and how it made sensible use of spent nuclear fuel. It was a shame to lose that capacity. People who are afraid of storage and disposal of spent nuclear fuel should support this concept. Spent fuel is pretty nasty stuff and it just makes sense to recycle it to use it more completely.

Idaho Falls has coped well with the downsizing of the site. The community has been very supportive of DOE and the site. This is a good place to do what they do there. Every potential site for GNEP will have some form of opposition. They should put GNEP where it makes the most sense, and I think it makes sense here. We have a supportive community. The regional universities are supportive. We are used to things taking time.

Overall concerns:

The INL is located over the aquifer, and that is always a concern. The aquifer must be protected. Whatever they do on the site must be protective of the aquifer.

Transportation into the state of spent nuclear fuel will cause some concern to people. Shipping by truck is problematic and the rail system is antiquated. For this reason it makes the most sense to site GNEP as close as possible to Yucca Mountain.

We cannot ignore the Batt Agreement. That was the governor's initiative, started by Andrus but finished by Batt. It was a personal thing that didn't involve the legislature. But it can't be

ignored. The cleanup challenges are large and they must be handled responsibly. The Agreement was premised on the completion and operation of WIPP and Yucca Mountain.

Expected public reactions:

The locals will support it. He expects the public in and around Idaho Falls to be supportive, but mentioned the Snake River Alliance and Keep Yellowstone Nuclear Free. He said "our friends on the other side of the mountain" have the ability to raise a lot of money and have the potential to really hurt our community. Many are part time residents of Wyoming. He said local (Idaho Falls) folks don't really understand what motivates them. Keep Yellowstone Nuclear Free seems to oppose anything that would expand the site mission. They seem to be driven by emotions rather than with science. They are messing with our livelihood. The economics of that community are very different from here. We are dependent on these jobs and we benefit intellectual infrastructure that the site provides.

He added that some people won't care. They think the problem won't become really bad during their lifetimes. But it is important to him to help as it will affect his grandchildren's lives. We need to protect the way we live.

What could help better inform the public about GNEP:

Information should allow the public to compare nuclear to other energy sources. It should allow comparison of the environmental impacts of each as well as the potential for new power production capacity.

Feedback on briefing materials:

None.

Availability for workshop:

He will participate if he is available.

INTERVIEW SUMMARY

Interviewee: Business Leader, Twin Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

Very favorable. GNEP needs to "charge ahead" as it will be great for the state and regional economy.

He had a slightly negative reaction to the "global" part of the GNEP name. People in this part of the world don't like the global concept. They may be protectionists and fear-mongers – but the term doesn't play well in this part of the world.

Overall concerns:

He has no concerns about GNEP.

Expected public reactions:

Public reactions will be "all over the board." Some will cheer and some will jeer.

He related that the Magic Valley area had recently lived through an experience where a vocal minority played off people's fears and shut down a new coal-fired power plant. The hearing was very unfair and the result was very unfair. People fear what is not known to them.

He has heard that some of the opposition would have reacted differently if it had been a nuclear power plant.

Early, accurate information is critical. People will not oppose something if they understand it.

The INL is the "brain trust" for nuclear. All nuclear power plants around the US were designed and tested at the site. The site has demonstrated its ability to do its work safely and cleanly. He knows that some have concerns about contamination to the aquifer, but he is not afraid to drink the water in the Magic Valley.

He is not at all fearful of nuclear. He had a friend from college who went to work in Richland. He has been around people who work for the lab. He doesn't know everything there is to know about nuclear power, but he trusts his neighbors (Idaho Falls) who do know about nuclear.

Opposition to nuclear appears to be correlated with education levels and life experiences. Some of them are from Idaho, but others moved here from other places, like California. Those who oppose nuclear, the "backwards segment," cause detriment to society as a whole.

What could help better inform the public about GNEP:

Adapt the materials for use on television and the Internet. He said he would not have read the material if it has not been sent to him via email. Public education needs to be delivered to people in a way that they already receive information. GNEP should consider using blogs, MySpace, etc. type mechanisms because that is the way that young people gather information now. All materials should be adaptable to different media. Material should be factual and concise.

Feedback on briefing materials:

Take Bush's picture off the materials. Bush has lost credibility. But more than that, this effort will have to be bi-partisan for it to succeed.

Availability for workshop:

He would like to participate. He does not have any conflicts at noon or in the evening.

INTERVIEW SUMMARY

Interviewee: Business Leader, Twin Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

Favorable. He explained that he is not a technical person.

The information presented to date has failed to "hook" people emotionally. He has a public relations background, and effective communication materials start by appealing to people's emotions, then deliver relevant factual information, then close with a request for support. Everything he has seen so far has launched right into the facts. So far, the facts are being communicated but without the hook and the appeal. This approach does not compel people to support the effort. This approach does not get people to be passionate about something.

He believes in nuclear power. Idaho Power anticipates that by 2023, they will be getting 250 megawatts of power from nuclear. They are anticipating that they will be able to purchase that amount, and it is their expectation that INL will have a role in that future.

Nuclear energy is consistent with the INL mission. INL, as the lead lab for nuclear, should get GNEP. It should be a natural fit.

He is not concerned about the environmental impacts of nuclear. It is safe and it is clean. Even without a repository, there is a need for GNEP.

INL has been a good neighbor for its entire history.

Overall concerns:

None.

Expected public reactions:

70% will be the silent majority. 20% will present strong opposition. The remaining 10% will support with passion.

There are two concerns to the public: 1) aquifer contamination and 2) waste storage on site. Not everyone is concerned about both issues. Snake River Alliance plays on the fact that agriculture is the livelihood of the Magic Valley. The area is dependent upon the aquifer for drinking water and for irrigation. The long standing farmers have never been negatively impacted by air or water contamination. They trust the site. Newcomers, like the new dairies, are relying on wells and they don't trust the site as much yet.

If there is no repository, then the need for GNEP will increase. Reprocessing would reduce the volume of waste.

The Batt Agreement was hugely popular. It has stood the test through 3 or 4 governors. If the feds can continue to live up to the commitments they made in the agreement, if they can keep making progress, then everything will be okay. If, however, they are not able to get the national repository open, it will start making everyone nervous. If GNEP is here, and Yucca doesn't open, it will be seen as Idaho caving in to national interest. Commitments were made and if DOE starts failing to meet those commitments, then trust will erode.

How will the public react? It depends on how and how well GNEP is explained. Some will have positive reactions, including feeling good about less expensive power, economic development opportunities, new employment opportunities. This would benefit the economy of the region, the state. But the information must be well presented (hook, deliver, emotions) and answer their questions. People need to feel connected to the information before they will take action on it.

What could help better inform the public about GNEP:

Don't do a script and don't do a PowerPoint presentation. Print materials are okay.

Feedback on briefing materials:

No feedback.

Availability for workshop:

He would like to participate – but is not available at noon.

INTERVIEW SUMMARY

Interviewee: Business Leader, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-1-2007

Overall reactions to concept of GNEP:

His personal opinion is that he sees nuclear energy as a necessary technology, and that GNEP is the right direction.

Overall concerns:

There is a need to address two primary issues if GNEP in Idaho is to move forward: the waste issue and the Settlement Agreement.

Waste issue. Recognizes that waste is a significant issue when it comes to nuclear energy. What happens to the waste after recycling?

Settlement agreement. Asked the question: wouldn't it have to modified? Or negotiated at least? Federal Judge Ed Lodge has jurisdiction over the agreement, and is unlikely to bend. May be a roadblock, but could also be a safeguard in Idaho should GNEP move forward. For example: if the agreement is violated beyond the future potentially negotiated parameters, either pay additional penalties or get waste out by a certain date. He mentioned that there is some debate whether the buried TRU waste at INL needs to be dug up and moved out of state too.

Expected public reactions:

There is political support for this project. There is a solid base of support for GNEP in Idaho that diminishes as you move away from Arco. Nonetheless, the public is largely uninformed about what happens at INL – viewed more as a waste site than as a research laboratory. That needs to change. Public is uncertain about what happens to the waste after recycling. There needs to be an answer to this question that is more than just selling the project as an economic and energy development project.

What could help to better inform the public about GNEP?

Thinks that INL education will be a very important part of getting Idaho to accept GNEP. May be a good idea to work from the end back … first address what happens to the waste material (if waste is not addressed, makes him wonder how serious DOE is about GNEP). Sell it as part of the solution for nationally responsible energy policy. Idaho would be contributing to a global solution.

Feedback on briefing materials:

Useful materials, found them concise, but needs more time to review. Will get back to us on this.

Other people who should be engaged:

Will get back to us on this.

Availability for workshop:

Available on April 5th, except lunch.

INTERVIEW SUMMARY

Interviewee: Business Leader, northwest Wyoming and southeast Idaho
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

She thinks it would be "great" if GNEP came to Idaho. A lot of jobs will be created and economic development will occur. This could be very good for the economy.

Overall concerns:

The Snake River Alliance will likely have concerns because of INL's history, but the organization needs to know about other things the INL is capable of doing.

This country needs energy, cleaner energy, and a big quantity of energy. Lots of people will say they would prefer solar and wind energy.

If there were to be a problem with nuclear energy, it would be catastrophic. But the likelihood of such a problem is very small. Coal mining has accidents too. Wind energy has smaller problems, but they are much more likely to occur.

The INL has an excellent safety record. France gets something like 75-80% of their energy from nuclear and no one has stolen weapons material from them. The United Kingdom and Germany have a lot of nuclear as well.

We should be reusing the fuel until it has no remaining potential instead of throwing it away. We have the capacity to provide safeguards and we should be able to do what GNEP would require.

Expected public reactions:

The business community will see that this is a good idea. The universities will be supportive.

The environmental groups will oppose because they will be concerned about the chance of a problem occurring. They will remember Three Mile Island and Chernobyl.

What could help better inform the public about GNEP:

Many people do not understand what the INL does and what is capable of. Maybe taking people on a tour would help. You could sit down and talk with them about all sources of energy.

Alternate energy is attractive, but it will not meet our needs. People need to open their eyes.

Feedback on briefing materials:

The materials and the information are very good. Perhaps an even simpler version is needed, with reference to how to get more information.

Informational materials should outline the benefits to the community, the benefits to the country, and the benefits to the world. The materials should address likely concerns like nuclear security and safety. The materials should clearly explain what would be different from before and acknowledge what has been learned from the past.

Perhaps it would be best to frame the discussion as seeking a solution to our energy needs and help people make choices between all alternative energy sources so they can find the balance and figure out for themselves that nuclear is a good choice.

Availability for workshop:

Yes, would like to participate. Just let her know when.

INTERVIEW SUMMARY

Interviewee: Business Leader, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-2-2007

Overall reactions to concept of GNEP:

Makes sense.

Overall concerns:

Thinks that we will be confronted with the same issues that resulted in the 1995 Settlement Agreement. At first, Governor Batt was not adamantly opposed to nuclear energy. Then Snake River Alliance and the Wyoming counterpart launched an aggressive campaign to stop potential of nuclear waste. The TV campaign was brutal – "Why should Idaho be a waste dump for the rest of the country? Why would you do this to a beautiful state like Idaho?" The tides turned and Batt changed his tune and endorsed the opposition's position. That resulted in the Settlement Agreement. He suspects that history will repeat itself and that we will have a fight on our hands. Our best bet is to talk to people involved in that process back in the mid-1990's (Nick Miller with Hawely Troxell law firm, Democrat, also with the Chamber of Commerce, accurate historian).

Expected public reactions:

Thinks that northern Idaho will not be engaged in the issues.

Believes that we will not get much pushback from Ada County.

Even though they don't officially take a stance on political issues, thinks that LDS church could be influential.

The technology sector will be supportive since the national lab often funds technological initiatives.

Doesn't think that governor will necessarily support GNEP – cares less about economic considerations, and focuses mostly on keeping government small. Also, has not been financially supporting science and technology.

What could help to better inform the public about GNEP?

Pre-emptive strike in the way of public education; make sure we are presenting educational materials at a 7-8 grade level. Ensure that Idahoans know GNEP facilities will not become the next Chernobyl (ensure they know it's safe) and that they know what type of economic benefits would come to the state.

Feedback on briefing materials:

Did not have specific feedback when asked.

Availability for workshop:

April 5th - Not available in the morning or in evening, lunchtime meeting would be best.

INTERVIEW SUMMARY

Interviewee: Business Leader
Interviewer: Lou Riepl
Date: 3-3-2007

Overall reactions to concept of GNEP:

Stated that he has a positive initial reaction to the Global Nuclear Energy Partnership. Adds that he sees and feels an increased recognition that nuclear must play a key role in the nation and in Idaho.

Overall concerns:

Sees a real challenge in disseminating briefing materials broadly enough to get the GNEP message out effectively across Idaho.

Also stresses that DOE/RDA/INL can't afford to become "reactive" to opponents and opponents' threats of litigation; now is the time for those in favor of GNEP and nuclear to develop counterpoints to what might be expected from the other side.

Suggests that any policy adjustments that might have to be made to fully accommodate GNEP can't happen without broad public support.

Expected public reactions:

Expects a generally positive public reaction within Idaho; suggests that negativity toward the site has largely gone away & has been replaced with excitement over potential new missions.

What could help to better inform the public about GNEP?

Get materials out as broadly as possible; be transparent at all times; reach out to north Idaho where there is very little INL awareness; build local base of support and then take it statewide.

Feedback on briefing materials:

Thinks materials provided to him for review are readable and understandable; recommends that RDA/DOE keep outreach materials basic – limited in number and well-focused.

Availability for workshop:

Uncertain at this point as to availability on April 5 for follow-up workshop.

INTERVIEW SUMMARY

Interviewee: Business Leader
Interviewers: Wendy Green Lowe
Date: 3-6-2007

Overall reactions to concept of GNEP:

Guarded. She believes that the program should only move forward if it is in compliance with the Idaho Settlement Agreement as negotiated by Governor Batt and the proposed facilities are consistent with INL's historical research mission. She believes that recycling facilities should be located close to the spent fuel and not transported across the country as this is where risks are greatest.

Overall concerns:

She concluded that several statements in the information materials are either misleading or over-simplifications. For example, she believes that:

- Calling nuclear energy "green" or "clean" is presumptuous when the entire fuel cycle of other energy sources actually poses less threat to the environment. She suggests that this information be communicated more factually and sound less like promotion. For example, "Energy produced using nuclear energy would release fewer greenhouse gases than that produced with fossil fuels."
- Suggesting that GNEP would reduce the risk of nuclear proliferation is misleading. GNEP could potentially increase the volume of weapons-grade plutonium and safe stewardship of this material would be essential. The safeguards to protect the resulting material should be explained to allow the public to understand what it would take to accomplish reductions in the risk of nuclear proliferation.
- Claiming that GNEP would benefit other nations, based on the program that is currently being proposed, is not well explained. The "global" nature of the program is barely hinted at and not well enough explained to substantiate the claim that GNEP would "meet the growing worldwide demand for energy and encourage the growth of prosperity around the globe."

Such misinformation damages INL's credibility and will make people think there is something that they are trying to hide. Transparency of decision-making, particularly with such large policy discussions, is essential.

She has never had concerns about INL's traditional mission, which was to design, build, test, and conduct research in pilot-scale facilities. A full-scale nuclear power reactor not geared to research, but to producing power for use by the utilities, would be of concern. It would not be in compliance with the Idaho Settlement Agreement and would likely be unacceptable to Idaho citizens.

The potential need for water is not addressed in the information materials. Would it entail use of groundwater? Does INL have adequate water rights to the necessary water? How will those water rights be affected by ongoing water adjudication?

The fuel cycle research facility will presumably be doing research that would independently evaluate the results of the recycling facility and the recycling reactor. It might make a lot more sense to locate the research facility in a different location than the other two facilities. Third

party independent research and verification is an important aspect of research that lends credibility. Locating the research facility in the same place, particularly if both functions are contracted to the same entity, would appear to be a conflict.

If Yucca Mountain is not a certainty, the GNEP location could not ship resulting materials away again. Perhaps if commitments are made to receive only spent nuclear fuel quantities that can be assured will leave the state again would be the only way that this facility could be operated in compliance with the Settlement Agreement.

Expected public reactions:

To the extent that GNEP represents a continuation of INL's historic mission, the public will be supportive. A full-scale operating reactor is not consistent with the history of research reactors.

In addition, the public will want a definitive answer as to whether GNEP could be implemented within the Idaho Settlement Agreement. The path out (for the spent nuclear fuel that is brought in for recycling) should be clearly specified with enforceable deadlines.

The transportation of the spent nuclear fuel to the new recycling facility will raise public concerns. It might make a lot more sense to locate the recycling facility closer to where that spent nuclear fuel presently resides. She thinks most of it is on the east coast and in the southern United States. It might make a lot more sense to put the recycling center in a location that would minimize transportation risk.

The public in Idaho is always concerned about potential impacts on the aquifer. The information provided to the public should honestly portray potential threats to the aquifer.

What could help better inform the public about GNEP?

Provide accurate, specific information.

Feedback on briefing materials:

They are full of misleading statements at this point.

Availability for workshop:

Not yet known.

INTERVIEW SUMMARY

Interviewee: Community Leader, Boise
Interviewers: Emily Boerner and Lou Riepl
Date: 2-26-2007

Overall reactions to concept of GNEP:

Sees nuclear energy as an evolving technology that must be considered into the future if we are to start solving the energy crisis. Believes that GNEP location in Idaho could be a fantastic thing for the state if there is political will and education. Also thinks it would be a great boost to INL/eastern Idaho given its technological dependence.

Overall concerns:

Admits that he tends to focus on environmental issues. Recognizes that waste is a significant issue when it comes to nuclear energy. Also cited concern about discharge of warmed cooling water from operating plants. Questions about uranium mining, production, and potential dependence on other countries (much like foreign dependence on oil). Specifically:

- Where is most of the uranium in the world?
- How much of it is in the U.S., and where?
- How cleanly can it be extracted from its source (concern about mining)?
- How long until we run out of uranium and other elements needed for nuclear energy production (concern that we might be recreating a problem with nonrenewable energy)?

Expected public reactions:

Feels that Idahoans could react unfavorably to GNEP location in Idaho.

What could help to better inform the public about GNEP?

Believes that education will be a very important part to the process of getting Idaho to accept GNEP. Believes that evidence and technology should be used as guidance but recognizes the limitations…he thinks that political leadership will be an important part of the equation. A well thought out marketing campaign would be beneficial.

Feedback on briefing materials:

Useful materials, but no specific feedback due to inability to fully review them prior to the interview.

Other people who should be engaged:

Former and current executives with several organizations including Boise Cascade Idaho Department of Commerce, TJ International, and Treasure Valley Air Quality Task Force.

Availability for workshop:

Unavailable on April 5th.

INTERVIEW SUMMARY

Interviewee: Congressional Staffer
Interviewers: Gretchen Hund and Wendy Green Lowe
Date: 2-26-2007

Overall reactions to concept of GNEP:

She wishes that GNEP had come down the pike 5 years earlier. It's so needed and would have been great to have it in the works sooner to help educate the public about nuclear energy. She says that the old timers bring up the possibility of building a new reactor and would so love to see it happen. They wonder how Idaho lost the edge and would like to see the site return to its glory when it was the focus of nuclear energy research. She would like to see the U.S. not as dependent on Iraq/foreign for oil and thinks that newly designed nuclear reactors need to be a prominent component of the mix of energy solutions.

Overall concerns:

She personally has no concerns about GNEP. She's lived in the region since 1979 and sees this as NOT bringing anything new that is scary to the region.

Expected public reactions:

Public will ask questions like "Will we ever build a reactor out at the site?" There have been so many initiatives that have started but nothing that has really passed.

Public will also ask about the ties between GNEP and Yucca Mountain. She doesn't think they understand the connection and also don't understand the difference between GNEP and historical, existing-designed reactors.

Public also connect all nuclear reactors to Three Mile Island. They don't understand nuclear power and it makes them afraid.

Much of the public is ready for a new reactor and sees the need given increased energy demand. They understand the need for more, dependable, affordable energy and understand that nuclear has fewer environmental impacts than other choices.

A big issue for the public may be understanding the impacts from uranium mining associated with GNEP (less Ur needed with recycling BUT with the overall increase in nuclear power an increase in mining.) This analysis needs to be conducted and made available to the public.

People also don't understand the Settlement Agreement and what impacts it has or could have on GNEP.

Transportation is of concern to watch-dog groups (like Keep Yellowstone Nuclear Free) but not to the general public.

The public is also going to be interested in knowing what GNEP means for Idaho. A researcher at Boise State University analyzed the positive economic impacts INL has had on the state. The researcher told the interviewee that the site is really a strength to the state. But meetings where the site is touted as being such a gem to legislators outside of the region have not been effective. These state leaders from other regions of the state are very difficult to engage and often don't come to these activities. Work needs to be done in this area to make such presentations more compelling.

What could help better inform the public about GNEP?

She thinks that if we want to reach rural folks who never access the internet we should include materials in the weekly and bi-weekly newspapers that are read cover to cover by these citizens. An article that has a headline about how GNEP might help to reduce the cost of energy would be of great interest to farmers/ranchers/irrigators.

Feedback on briefing materials:

She found the fact sheets useful and particularly liked the matrix describing the facilities; but the weeklies mentioned above would be important to consider in getting messages to the public.

Other people who should be engaged:

She felt strongly that we needed to include stakeholders from the Jackson Hole and the Driggs region. She felt that they have the financial resources and the connections to those who have these resources to be a potential real obstacle to seeing GNEP sited in Idaho. She emailed a contact of hers who knows folks to identify who the community leaders are with whom we need to meet. Specific NGOs she mentioned we should contact included:

- Keep Yellowstone Nuclear Free – Jackson Hole
- Idaho Conservation League
- Yellowstone Business Partnership (she has important advocacy types on her board who could be critical to engage)
- Greater Yellowstone Coalition
- Driggs – County Commissioners
- Teton Valley Trust
- Friends of Teton River

Availability for workshop:

Not sure, but she will try and attend.

INTERVIEW SUMMARY

Interviewee: Congressional Staffer
Interviewers: Pat Serie and Marilyn Whitney
Date: 3-1-2007

Overall reactions to concept of GNEP:

Spent nuclear fuel exists because the United States created a civilian nuclear energy system, and we did reprocess fuel for many years. When the U.S. stopped reprocessing based on concerns about nuclear weapons proliferation, with an assumption that other countries would follow, they did not. Those countries have been reprocessing spent fuel safely for a long time. We are behind and need to take responsibility for the spent fuel in responsible ways. Mistakes have certainly been made over the years, but we have learned from them and must be able to commit to new safeguards, environmental protections, etc. based on those lessons learned. Questions about those issues are legitimate and deserve answers.

Idahoans support INL as the nation's lead nuclear engineering laboratory, and if they support it, they must support these emerging nuclear energy missions. If not, the opportunities will be lost. To attract world-class scientists and researchers to INL, the lab needs to be engaged in cutting-edge research and development.

Overall concerns:

The biggest hurdle for GNEP in Idaho is reprocessing spent fuel. Idaho's Settlement Agreement is an impediment to RDA's application and the premise of building a reprocessing facility on the INL site. Commercial spent fuel is the centerpiece of the Settlement Agreement, and how spent fuel could be brought to the INL site for recycling in GNEP is not clear. On the other hand, INL has made great progress in cleanup of INL's high-level waste tanks, and may be the first site to complete, so that speaks well for the site. Helping people understand the concept of reuse of spent fuel is critical to them understanding that GNEP is different and more beneficial than traditional reprocessing. Another note is that since the Atomic City site pursued by Energy Solutions is not on lab property, the Settlement Agreement may not apply to it.

Another potentially significant impediment is the fact that Yucca Mountain is not yet open; there is no clear place to take waste resulting from the GNEP processes. GNEP cannot be seen as a replacement for Yucca Mountain; they have to be in operation simultaneously to be credible about a solution for GNEP-produced waste products. This is true wherever the GNEP facilities are sited. Yucca Mountain seems to be stuck and is not getting the kind of funding resources to allow it to move forward in a timely way. Answers about waste disposal from GNEP will be critical, and he is not aware of what they are today.

Expected public reactions:

Last year a private firm proposed a coal-fired plant near Twin Falls, which generated significant public opposition. Public reaction ("Keep Magic Valley Magic") resulted in a legislated moratorium on new coal facilities, which was a surprisingly strong reaction from the Legislature. It is unclear how the Legislature would react to organized opposition to GNEP facilities. There is now a private-sector concept for a nuclear facility near Bruneau, Idaho (this is in Elmore County between Twin Falls and Boise).

Small amounts of spent fuel have been brought into the site over the past few years for research purposes, and that has not been a major problem. He personally does not think that transportation of spent fuel is a real issue; the U.S. has been transporting spent fuel for 50 years with an excellent safety record. It will, however, likely arise as an issue.

The Snake River Alliance and Keep Yellowstone Nuclear Free are likely to oppose GNEP. The Wyoming Congressional delegation may also react negatively to it; reference their reaction to INL's proposed waste incinerator.

What could help to better inform the public about GNEP?

Idahoans need to understand the importance of solving spent fuel problems; this is a political issue, not a technical or scientific problem. INL and Argonne successfully recycled fuel in the past, and the Lab is doing the necessary research to make recycling technology safe and reliable. They are likely to be most accepting of the fuel cycle research facility and a fast reactor; spent fuel imports for the recycling facility will likely be the biggest stumbling block. Gaining acceptance for GNEP would require a broad coalition of supporters. Critical people who could potentially carry the GNEP message include:

The three university presidents will be a critical part of a GNEP coalition; they are all proposing extensive research work for CAES and other university work; they will benefit from and contribute to GNEP.

Past governors who were active in spent fuel issues should be consulted for their positions on GNEP. Governor Otter is likely to be sensitive to their positions on the proposal.

The state Legislature needs to be engaged early. They have in the past made resolutions unanimously in support of INL, but it will be critical to get them accurate information and answer their questions early in the process.

Environmental groups are beginning to recognize that improved nuclear energy can be part of a diversified energy portfolio, along with solar, wind, hydro, and other options to oil dependence. His boss spoke to the Idaho Conservation League about that topic and did not get overwhelming negative reactions. This may be an opportunity for the environmental community to understand how that could be done, and potentially to gain their support.

The four newspapers that cover INL issues (Idaho Statesman, Times News, Idaho State Journal, and Post Register) will need to be looped in, educated, and encouraged to keep an open editorial mind as the process moves forward.

Idaho's Congressional delegation may be willing to step up and champion but will need assurance that the proposal is real, will be supported by DOE and Congress in terms of funding and will move forward. There is political risk in supporting something like this, which is not warranted if the path forward is uncertain. The tens of billions of dollars needed will take a major federal commitment, and the need for that significant government funding up front is a barrier in itself. It is not clear that the Energy Solutions' proposal would require significant federal funding up front.

Support from all Eastern Idaho local governments is critical as well; note especially Democratic mayors Chase (Pocatello) and Larson (Rexburg). Counties, school districts, chambers, contractors, unions, lab personnel, local experts, academics, site retirees, etc. will all need to be strongly supportive.

The Shoshone-Bannocks Tribe will be interested in its role to oversee any GNEP development and should be consulted about their potential support and/or concerns.

It would be helpful to have a group of "experts" (e.g. Coalition 21) ready and available to answer technical or scientific questions. These experts could be a mix of employees, university researchers/professors, retirees, etc.

It is important to address the inaccuracies put out by Keep Yellowstone Nuclear Free, the Snake River Alliance, etc.

Much of what is being proposed under GNEP are technologies the U.S. initially developed. Additional research has been done and we know how to safely recycle spent fuel.

Feedback on briefing materials:

He didn't spend a lot of time on the materials sent to him but will review and offer feedback. It is important to have good, easy to understand materials. He particularly would like an answer to a question they have asked before: What is the remaining waste stream from GNEP? How much material and what kind would be produced? Why is it better in this regard than traditional reprocessing?

Using the term "recycling" as opposed to "reprocessing" is important in communicating about GNEP to the general public.

Availability for workshop:

Interested and available; breakfast probably best. His boss will be represented, testify, and provide a written statement at the March 15 scoping hearing.

INTERVIEW SUMMARY

Interviewee: Engineer, South Idaho
Interviewers: Wendy Green Lowe
Date: 3-9-2007

Overall reactions to concept of GNEP:

Largely very favorable. He thinks the rationale given for GNEP (reduction of green house gases, increased international security, and non-proliferation) is sound. He said he expects that some environmentalists may want to "just say no but that they shouldn't be allowed to do that without making suggestions for better solutions."

Conservation and renewable energy are both good ideas that should be pursued. But he is convinced that nuclear should have a role as well. He said, "nuclear will have to play a role not just in the US but around the world." There is much discussion about the world being more global. That is true whether discussing the environment or the economy. "None of us can afford to act as if we are in isolation anymore. Pollution any where in the world affects all of us. We need to work together, or we will all suffer consequences."

He is very interested in global climate change. He has been reading reports produced by a University of Washington Climate Group, particularly those focused on potential impacts on the Columbia River Basin, which has modeled projections of the impacts of climate change. It appears that Idaho will be a "loser" in a number of ways. Idaho will receive less precipitation and will experience less snow pack and less runoff. The hydrologic cycle in Idaho has already shifted by two weeks over the past 50 years (snowmelt hits the rivers two weeks earlier than it had in the past). The peak of run-off is already occurring before irrigators can make use of it. The Idaho Legislature has been trying to come up with ways to recharge the aquifer. Less precipitation means less water for irrigation, less water for recharging the aquifer, and less water in the river systems for generating hydroelectric power. Climate change also means warmer temperatures. So farmers need more water to keep soils and crops hydrated, but have less water to irrigate with.

By contrast, Canada will benefit. Some farmers are already moving across the border into Canada. For example, Simplot closed its potato processing plant in Heyburn and opened a new facility in Canada to process potato products grown in Canada.

He does not believe that human actions will be able to turn global climate change around – but that it may be possible to slow the process down enough to buy time to adapt to the changes. Agriculture and water resource policy and practices will need to be adapted. The American Water Works Association is now advising that all water users on private systems focus on the sustainability of their water supplies.

For example, the amount of water that a southern Idaho city receives from the aquifer has declined by 3% per year over the last decade. As a result, the city is looking into the potential for treating of canal water for use as potable. They have look into the possibility of purchasing 1000 shares of canal water. That would pull 1000 acres out of agricultural production, but would provide assurances to the city for addressing continuing loss of water.

Global climate change and providing for increasing energy needs are huge challenges. In addressing energy, another thing that should be considered is how to distribute energy more efficiently. All solutions should be pursued.

Overall concerns:

He stated that he does not feel qualified to evaluate whether the INL or Atomic City would be a suitable location for GNEP nor to make a determination as to which of the locations being considered by the Department of Energy would be the best location. He said groups like the Snake River Alliance will present compelling arguments as to why it would not be good to put the facilities in Idaho. He understands that plutonium will result and that this weapons-grade plutonium is the only material used in nuclear bombs. This all leads to the conclusion that DOE has a really big decision to make, a very important decision to make.

Based on what he knows, he has no reason to think that the Idaho sites would not be suitable for the proposed mission or that they are any less suitable than the other potential locations.

He understands that there are many people in the Magic Valley area who are concerned about aquifer contamination. Many Idaho residents know very little about the site; they do have access to a lot of misinformation.

He said that Jim Lake had told the Rotary Club that INL is a world class facility with world class scientists. Based on that observation, he said he has no reason to think that the site couldn't serve as an appropriate site for the GNEP mission.

He thinks the recycling facility would serve to help reduce storage problems by reducing the volume of waste that would require long-term stewardship.

He reported that he reads the *Engineering News Record*, a weekly periodical that is 100 years old that provides articles on emerging issues of interest to engineers. He said recent issues had addressed the next generation of nuclear. One challenge that is faced is that there are few young professionals. Most people who work in and around nuclear are over 55 years old.

He does have some specific concerns:

He would like to know more about waste that is presently stored at the INL. What is the status of Pit 9?

What new waste products would be produced by the GNEP program? How will those wastes be handled? What technology is needed for that effort and how well is that technology understood?

What is the real status of Yucca Mountain?

What is the potential for an accidental release of radioactivity?

Expected public reactions:

It depends on where they live in the state and how much exposure they have had to nuclear issues. Eastern Idahoans are more aware of nuclear and therefore are less fearful.

GNEP should embark on a large-scale public awareness campaign. A recent presentation to the Rotary in Twin Falls provided good information. He left the presentation convinced that nuclear energy is a green option that needs to be considered seriously. This new program will not be supported by the public unless a lot more people learn a lot more about nuclear power.

What could help better inform the public about GNEP:

INL has not done as well as it could at informing and involving the public. Some of the concerns raised by the Snake River Alliance could be mitigated if INL provided good information to the

public. The presentation to the Rotary was well done. "But we are a group of about 50 old men. We are the kind of people who can take the time to sit down over lunch to hear a presentation. A lot of people don't have time to do that. They need to provide that information to a lot more people, young people, children."

Feedback on briefing materials:

They are pretty good. An average person could read them and understand them. They are written at any appropriate level. The Bush brochure (provided electronically) didn't print well – it was hard to figure out how to read it.

Availability for workshop:

He would like to attend. Evenings are probably best for him.

INTERVIEW SUMMARY

Interviewee: Environmental Activist
Interviewers: Wendy Green Lowe
Date: 2-28-2007

Overall reactions to concept of GNEP:

She is opposed to GNEP. The program has limited potential for success. It will cause perturbations throughout the international community and undermine the US position within that community.

The program goals are worthy goals. She agrees there is a need for additional energy production, cleaner energy solutions, and increased energy independence and she supports the objective of assisting other nations with similarly increasing energy needs. But GNEP as conceived is not the correct policy solution to accomplish those goals.

The US Congress has warned the sites in contention for GNEP to be prepared to store spent nuclear fuel for up to 100 years. This could mean that whatever site is selected will become a de facto dump site. Some of the provisions under the Idaho Settlement Agreement were written to ensure that spent nuclear fuel stored at the INL will eventually leave the state. Other provisions limit the quantity and source of spent nuclear fuel that can be shipped to Idaho.

Overall concerns:

She does not agree with the statement regarding compliance with the Settlement Agreement on the Q&A piece because it includes some elements that aren't in that agreement. She understands why it might be inappropriate for the Regional Development Alliance to speculate on the outcome of possible legal negotiations between DOE and the State of Idaho related to compliance with the Settlement Agreement, but she believes that GNEP would violate the Settlement Agreement. The statement (in the Q&A piece) could result in confusion on the part of stakeholders; some people may support moving forward with GNEP based on the assertion that GNEP could be implemented without violating the agreement. She further thinks that if those stakeholders thought that GNEP might violate the Settlement Agreement and/or require renegotiation of the Settlement Agreement, then they would not support proceeding with GNEP. This is an important example of why she feels it is inappropriate for the RDA to be providing information to the public in limited settings as it will influence how supportive people might be of GNEP.

She thinks it is disingenuous to rename reprocessing and refer to that process using the more innocuous term "recycling." She said the process is called reprocessing when North Korea does it and that everyone understands that process to be threatening. She thinks it is insulting to suggest that Americans can't understand what reprocessing is. It would be more honest to use the same terminology for all parties doing the same thing.

She wonders about the assertion that GNEP is international in scope. She wonders what countries would be supplier nations and what nations would be recipient nations. She suspects that the nations with current nuclear programs (US, France, Japan, etc.) would be the supplier nations. She reported that she had attended the Nuclear Energy Research Advisory Committee meeting where Ghana was the only country that was mentioned as a possible recipient nation. This information needs to be spelled out in much more detail for the public to understand the global aspects of what is being proposed.

She questions DOE's cost estimates for GNEP. One number DOE used some time ago was $40 billion. The National Academy of Sciences has estimated that it would take $100 billion to reprocess the 62,000 tons of spent nuclear fuel currently in the commercial inventory. That doesn't cover the cost of a fast reactor. She questions the large difference between these two numbers. In either case, the program will be enormously expensive. The cost estimate should be well explained and discussed by the public before significant funding is spent on the program.

She questions the assertion that nuclear must serve a role in the US energy future. She said that many energy economists have observed that the opportunity costs of nuclear energy are very high because it is so expensive and time consuming to build and operate a nuclear plant.

DOE has been constantly changing the technologies that it is proposing for GNEP. Some have not yet been demonstrated. Others have already been demonstrated to not work in the manner necessary. The technology needs to be defined and explained in adequate detail to support public review.

She takes exception to the decision to include the Advanced Recycling Reactor (a sodium-cooled fast reactor) in the plans for GNEP. Sodium-cooled fast reactors are very difficult to operate and very dangerous; sodium can catch fire if exposed to air or water. They are also very expensive to build and operate. The information provided on GNEP does not accurately convey the difficulties associated with this reactor technology.

She reported that Admiral Rickover had ordered only one sodium-cooled reactor for the US Naval program, and that he later took that reactor out of service after only one year of operation. He reportedly explained that decision by saying that sodium-cooled reactors are complex to operate, susceptible to long shut-downs, and difficult and time consuming to repair.

Reprocessing is the most polluting step in the nuclear cycle. In Britain and France, the vast majority of air emissions associated with nuclear energy result from the reprocessing step. The English Channel has become very polluted as a result of water emissions. Contaminated fish have been found as far away as the Artic Circle.

A total of 11 billion gallons of liquids contaminated as a result of reprocessing were put down the INTEC injection well.

The mechanics of reprocessing are quite complicated. The old Chem Plant was a very complicated facility and it is assumed a new facility would be similarly complicated. It would be very difficult to detect missing product should there be a theft of weapons grade plutonium from the new reprocessing facility. It will present an extremely complex materials accounting challenge.

She disagrees with the assertion that GNEP would reduce the threat of nuclear weapons proliferation. The only way to get plutonium is to reprocess irradiated reactor fuel.

It is ludicrous to say that reprocessing will not result in weapons grade plutonium; reprocessing is the only way to get weapons grade plutonium.

Spent nuclear fuel is self protecting. It is so radioactive that terrorists couldn't possibly steal it and live to do anything with it.

DOE has many major technical decisions to make before GNEP could move forward. To get to a Record of Decision on the schedule that has been established, these decisions would have to be made without the benefit of widespread public discourse. At a minimum, this violates the intent

of the National Environmental Policy Act which was established in part to allow for public participation in policy making. It would be undemocratic to proceed at this pace.

GNEP represents a huge change in a long-standing public policy. The decision to stop reprocessing was made by Gerald Ford and that policy has been upheld by every president since then. Both political parties have supported the policy. A sustainable change in this long-standing policy will require open public discussion and bi-partisan support.

In addition, the policy shift would have environmental costs and economic costs. Perhaps more importantly, this policy change would fundamentally change the US role in non-proliferation and our reputation worldwide. Such a major shift in public policy should not be rushed.

The resources that this program would require are excessive. It is unwise to proceed with this huge change in public policy, at this huge cost, within the space of a single administration. For the program to be successful, it will require bipartisan support.

The utilities do not support reprocessing. It will continue to be less expensive for the utilities to purchase new fuel rods. Unless the reprocessed fuel rods are heavily subsidized, there will be no market for them.

Expected public reactions:

Once the public understands the ramifications of what is being proposed, they will be opposed. It will take awhile to figure this out, however. And in order to support a true understanding of what is at stake, the public needs objective information.

The site evaluation process was designed to support decision making within the context of the public not really understanding what is at stake. Placing responsibility for evaluating the potential for public acceptance in the hands of organizations like the RDA that are proponents for GNEP means that the information provided to the public will be biased.

The very short timeframe will prevent the public from understanding what is at stake.

What could help better inform the public about GNEP:

The juxtaposition of the public meetings being conducted in compliance with the National Environmental Policy Act (NEPA) in the same timeframe as this effort is disconcerting. The disconnect between the public participation requirements around preparation of NEPA documents from this process ostensibly to gauge potential public reaction, but in reality to gain public support, is disturbing. It is inappropriate for the RDA (as a proponent for the project) to provide information to the public. The information is biased.

Feedback on briefing materials:

See above.

Availability for workshop:

She is interested in participating. She could attend any of the three time options.

INTERVIEW SUMMARY

Interviewee: Environmental Activist
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-1-2007

Overall reactions to concept of GNEP:

Thinks GNEP represents an effort to push capital investment and technology up front to reinvigorate nuclear energy. A movement in this direction could have irreversible consequences and ties the country into being stuck going in a nuclear direction (e.g., if the investment has been made, there is a perceived need to continue along this path). We should not be distributing reactors to countries that may turn on us in future times and use weapons against us. There are better answers for providing energy than nuclear.

Overall concerns:

Feels that nuclear reprocessing is an expensive, dirty activity. Reprocessing has a shady/failed history (consider West Valley, Savannah River Site, Hanford). It is how India and Pakistan developed nuclear weapons. It is much cheaper ($100 billion) to dispose of spent nuclear fuel directly (no reprocessing). Reprocessing is an unnecessary middle step that will put money into corporate pockets; moreover the nuclear industry does not really even endorse this technology because it is too complicated. The science behind transmutation fails, and engineers often abandon the concept when they understand the results.

DOE should continue to focus on cleanup and not reprocessing. Energy policy should focus on renewable energy (solar and wind) – the US should not get sidetracked with nuclear power when renewable advancements are occurring at lightening speed.

He sees GNEP as a violation to the Settlement Agreement – why is funding being spent on a project that the citizens of the state have said no to. He doesn't see Yucca Mountain ever opening and without it, where is the waste going to go? If spent fuel comes to Idaho, even with GNEP, the residual waste will never leave.

He thinks that decisions related to Yucca Mountain should be slowed down. He advocates putting existing spent fuel in a safe, retrievable form that is proximate to reactors generating the spent fuel. Those who generate it should be responsible for managing it. If these reactors decide to build a more regional facility, that would be fine too.

He is completely convinced GNEP/reprocessing is a bad idea and no particular version of an advanced reactor to burn the reprocessed fuel would be agreeable to him.

Expected public reactions:

From a national/international perspective, does not think there is political power to move on this. Ever since negative reaction to our war in Iraq, we have not had the international clout. Note: he thinks that general focus groups with people who know little to nothing about nuclear reprocessing will not be useful. It will be an exercise of obtaining people's perception of the words we are using, not on the reality because we have been so vague on what the plans are.

What could help to better inform the public about GNEP?

Asked whether the proposal for eastern Idaho is publicly available – would like to see specific language. There is a need to know what type of reactor is being proposed and disclose this

information to the public – is it sodium-cooled or pressured watered? This makes a big difference. In addition, feels that a distinction between reprocessing and recycling should not be made – it should be called reprocessing, and not sold to the public as recycling (introduces bias). Example: it is deceiving to say that this is recycling when you are generating so much additional waste in transmutating plutonium. Plus there is SO MUCH plutonium sitting around the country that we don't need to be worried about reusing this "resource" and the funds needed to do this could be much better spent working on renewables and energy efficiency.

Feedback on briefing materials:

No feedback on materials. He does think the use of the term recycling is misleading.

Other people who should be engaged:

Will get back to us on this.

Availability for workshop:

Available on April 5th and plans to come.

INTERVIEW SUMMARY

Interviewee: Environmental Activist
Interviewers: Wendy Green Lowe
Date: 3-9-2007

Overall reactions to concept of GNEP:

She is not in favor of GNEP based on the information that is available to her at this time.

She has a fundamentally different philosophy and believes that the portrayal of GNEP as being an "energy efficient approach" is flawed. She questions the intentions behind the program and feels that it has been misrepresented. She does not believe DOE's intentions are pure. She thinks that GNEP is conceived as a way of getting out of Yucca Mountain. Her closing comment was that GNEP doesn't make sense – anywhere.

The approach that is being taken for GNEP feels like it is putting the responsibility for conducting public participation into the "wrong hands." She thinks the public meetings will be competitive, with each potential host community rolling out the business and political folks to vie for the federal dollars. These people are blinded by the dollars and do not have any comprehension of the likely impacts of the facility should they "win." They are failing to protect the public's interests.

She feels that if DOE is preparing an EIS, then they have the responsibility as a public agency for providing objective information to the public to support their involvement in this decision-making process. She feels DOE is falling short. She would rather sit down with people from the laboratory, talk about what they are trying to accomplish, and work out a path forward that is responsive to public concerns. DOE needs to learn from its past experiences.

The federal agency should be engaging the public in discussions, rather than asking a proponent of the facility to serve in that capacity. People up to 500 miles away will be affected by this project, and the public participation program needs to engage them. The public that will be affected needs good, balanced information about the project in order to participate effectively. The public that lives a bit farther away, that won't be positively impacted by the jobs and economic opportunities can be more objective because they do not have financial or economic interest in the outcome.

The way this project is being conducted, DOE is setting the tone and controlling the agenda. It is forcing people who care about the outcome to act on the fringe. The process is flawed, tilted, and insulting.

Overall concerns:

She had many specific concerns as well.

It is not ethical to call the reprocessing process recycling. Recycling is a public good that takes a waste product that must be disposed through a low-impact, closed-loop system and turns it back into a resource. Recycling does not produce waste. Reprocessing is a highly technical and additive process that creates new waste streams and poses new dangers. The nomenclature rankles her and feels like a word trick. DOE should not expect people who are educated about recycling to accept this terminology.

Neither she nor her group are "anti-nuclear" - they just don't think nuclear energy can be successful until the waste and several safety issues are improved. She also doesn't see nuclear as the sole answer to global energy needs, and thinks that other technologies should not be excluded in the exploration for a more sustainable, emissions- free or emissions-reduced technology. It is an extremely expensive technology, which means that it is not accessible nor sustainable for many countries. It will add to the global burden of responsibility for managing liquid high level waste.

There is no clear path forward for disposal of the waste that resulted from reprocessing that is already at INL. That waste has been sitting there waiting for a path forward ever since DOE stopped reprocessing. A Congressional report has warned that the materials that are separated out during the recycling process will require responsible stewardship for one hundred years or more at the primary site– and INL hasn't figured out how to manage the waste it already has.

The information materials claim that GNEP would reduce the volume of waste that DOE is presently responsible for managing. But the resulting waste would be even hotter than the waste that already presents challenges. A smaller volume of more challenging waste is not a step in the right direction. The capacity of Yucca Mountain will be reached more quickly if the waste acceptance criteria are based on radiation levels. This would not reduce the need for Yucca Mountain in any way.

The proposed facilities would result in pollution to the land, water, and air. The facility would produce vast volumes of contaminated water, which would cause grave threat to the Snake River Plain Aquifer. The reprocessing facility would result in air emissions. As DOE knows, air emissions are a big concern to the people of Jackson, Wyoming. Failure to comprehend how concerned their community is about air emissions is what lead to the cancellation of the incinerator at the Advanced Mixed Waste Treatment Plant. If people's concerns about air emissions are not addressed this time, she is confident that the people of Jackson will mobilize again.

The reactor that is proposed is a sodium-cooled fast reactor. They do not have a good history. They are expensive to operate and they have been plagued by safety concerns. The sodium will explode if exposed to air or water.

The cost estimates provided by DOE do not make sense. The Bush administration has requested $250 million for GNEP – which is not nearly enough. The National Academy of Sciences has said management of spent nuclear fuel through ultimate disposal would total $100 billion. She believes that GNEP would be more expensive than direct disposal as it would involve additional steps. She doesn't understand the cost estimate – and said that DOE must provide a credible cost estimate that would cover all life-cycle costs. This project would only make sense if it were to be more cost effective than direct disposal. A comparison is not possible unless all costs are included in the estimates.

The money that it would take to build and operate these facilities would be better spent on exploring other energy sources. Keep Yellowstone Nuclear Free does not oppose nuclear energy – but that does not mean that the organization can or will support nuclear technologies that have already been demonstrated to have problems. DOE would get a lot more results it is spent this amount of money to remediate the immense waste problem it already has, or reduce the problems associated with other energy sources. The result would likely produce more sound, safe and

sustainable solutions. Keep Yellowstone Nuclear Free is not satisfied that DOE is doing a good job dealing with the wastes that it is already responsible for.

The proposal claims that GNEP would be emission-free, sustainable, and produce clean energy. How is that possible?

She takes exception to the contention that GNEP would increase international security. Keeping spent nuclear fuel in its current form makes it resistant to proliferation. The separated constituents are what is needed to make a bomb.

The nature of the partnership, presumably involving France, the US, the UK, Russia, and China, is not explained. It does not give her confidence that they will be assuming their share of the risks. The other countries appear to have low confidence that they can be protective of the resulting materials.

There were many good and important reasons to stop reprocessing. This proposal does not make a case for how the situation has changed and why it would be a good idea to start again. It is mind boggling that DOE thinks it can just decide to restart reprocessing without explaining why something that has not been done for so long is suddenly a good idea again. The problems that lead to the change in policy (to stop reprocessing) have not gone away. Restarting reprocessing would be a grave and dangerous mistake.

It is hypocritical for the US to restart reprocessing when it condemns other countries (like Korea and Iran) for doing it. What message would this send to those countries? The US won't tolerate such actions in other countries, yet we think we can get away with doing it here. This decision appears to have been made in isolation rather than in cooperation with other countries that would be partners. There are treaties to ban reprocessing and this would violate those treaties.

In addition, the entire strategy would forge ahead without regard to the biggest challenge facing nuclear – safe and responsible waste management for the huge inventory of waste that has already been created as a result of nuclear energy.

She does not believe that it is fair to propose that the "recycling" process will reduce waste. It will produce another waste, liquid high level waste, which is even more difficult to manage than spent nuclear fuel. Past experience shows that separated materials, like plutonium, would just build up at reprocessing sites, posing significant public health and safety as well as security risks.

Expected public reactions:

There will be little reaction if DOE doesn't do a better job of alerting the public to what is going on. No one public is any smarter than any other. The economic roots in southeast Idaho, their ties to the site, are very deep. This proposal is "in their blind spot." because of the perceived economic boost to SE Idaho.

If people truly understood the long-term impacts of the proposed facility DOE is considering, one would think they would stand in opposition.

Feedback on briefing materials:

She was not impressed by the information that is available at this time. She feels the materials are biased, presenting a one-sided version of the story. She went on to say that DOE is not a credible source of information and that she had a hard time figuring out what is being proposed.

She had done some digging around and found some information that contradicts information provided by DOE on the website.

Availability for workshop:

She would like to attend the workshop and thought the president of their board might as well.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Southeast Idaho
Interviewers: Gretchen Hund and Teri Ehresman
Date: 2-26-2007

Overall reactions to concept of GNEP:

Makes a lot of sense to him. He thinks revitalizing nuclear energy is critical to the local economy and community as a whole. He needs to have a quality school system to draw-in a workforce he thinks the community wants to see so there is interdependence among what goes on at the site, resulting economic development for the region, and having strong schools. He was proud that the schools in his district have won impressive competitions in math and science not only in the state but nationally; but a strong economy is the most critical component. Just last week his district had a supplemental levy to be voted on by the citizens to cover 12% of the school district's operating costs. The area needs to have a strong economy for these types of levies to be approved.

He is also in favor of diversity and thinks that bringing in programs such as GNEP will provide the region with that sort of diversity (including bringing in foreign employees and their families). He mentioned the number of languages that are currently spoken in the area (5) and said that this number could triple in 10 years. He also feels that having a diverse community who expects a strong art program (e.g., symphony and Colonial Theater) motivates the community to provide these programs.

Overall concerns:

The settlement issue is of greatest concern to him. He would hate to see it keep GNEP from coming to the region. He hopes that this can be negotiated so that it is not a detriment to DOE in bringing GNEP to Idaho.

Expected public reactions:

This will depend on the person's education. Better educated people (particularly with strong math and science) will likely be more positive about GNEP. In the circles he walks in there is not a lot of fear of people "glowing in the dark." They understand the economic relationship between a program like GNEP and the vitality of the economy and region.

What could help to better inform the public about GNEP?

He thought more could be done in the area of comparative risk assessments – more from a risk communications perspective. People also needed to understand the footprint necessary to have a solar or wind farm match the amount of energy that could be produced by a nuclear power plant. He also felt that understanding the risks associated with dirty energy sources (e.g., standard pulverized coal plants) is important for the public to know so that they can better compare this program to it. Knowing what are the costs associated with petroleum spills and accidents and the damage from these is important.

Feedback on briefing materials:

He found the fact sheets very helpful. He thought the map helped to put the whole program in perspective and gave him a good sense of the competition.

Other people who should be engaged:

No one offered.

Availability for workshop:

Morning or evening of April 3rd is best; lunch would not work.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Southeast Idaho
Interviewers: Gretchen Hund and Teri Ehresman
Date: 2-27-2007

Overall reactions to concept of GNEP:

He's very excited about seeing this come to Idaho. He questioned the timing of the AFCRF envisioned to be part of GNEP. Is it planning to be built after the fuel recycling center and after the advanced recycling reactor?

Overall concerns:

He personally has no concerns about GNEP except about stable funding for it from Congress. He'd hate to see the project just sit on a shelf because the funding is not available to pursue it. As an educator, he needs enough lead time to ensure that he has the appropriate trained labor pool including construction workers and others available to support the project.

He is personally satisfied with the safety issues associated with GNEP but thinks that this could still be better communicated to the public.

Expected public reactions:

Anti nuclear groups will be against GNEP.

Two issues he sees of concern to the public are:

- transportation – spent fuel hauling
- seismicity – activation of the fault line near the site. They had an earthquake in 1984 called the Borah Peak Earthquake that was an 8 or so. It was 125 miles from Idaho Falls and about 75 miles from the site. The advanced reactor responded just as it should have (shut itself down) but this is still of concern to some citizens.

What could help better inform the public about GNEP?

He'd like to see some effort spent in describing the negative effects from other forms of energy. He still thinks there is an inconsistency in that the community says it cares about climate change and CO2 emissions and yet votes to accept power from a coal plant in Utah that uses standard, pulverized coal technology.

To address transportation and seismic issues, safety engineers who are third-party folks (not affiliated with INL or DOE), need to explain these risks to the public.

Feedback on briefing materials:

He found the fact sheets useful and particularly liked the matrix describing the facilities.

Other people who should be engaged:

He mentioned that we needed to go to Jackson Hole to meet with groups and citizens against nuclear power.

Availability for workshop:

Not available on this day at all.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Pocatello
Interviewers: Pat Serie and Gretchen Hund
Date: 2-28-2007

Overall reactions to concept of GNEP:

He personally is supportive of the GNEP effort, but raised several questions that will need to be answered in future materials and presentations:

- Are other countries using similar approaches?
- Where does the uranium come from to support this increase in nuclear energy?
- Does spent fuel waste contain materials that can be used for dirty bombs?
- How would Idaho's Settlement Agreement with DOE come into play if spent fuel would come from other states to GNEP facilities located in Idaho?
- Are the three GNEP facilities to be sequenced or done all at once? (would appreciate response on this)
- Do the recycling facility and the recycling reactor constitute a research activity, that would then be replicated elsewhere in the country, or would they be the sole operating facilities?
- What other nuclear energy projects is INL pursuing? Might there be competing interests and resources with GNEP? Is the focus on a sustainable long-term future for the lab?
- How does Gen IV research on the next generation of a reactor compete with GNEP?

Overall concerns:

He is not significantly concerned about the GNEP at this conceptual stage.

Expected public reactions:

He expects concerns from people who are generally resistant to nuclear power in any form, based on a lack of understanding of the real versus perceived risks. He thinks it will be a challenge to help people understand the benefits and safeguards, but sees recent broadened acceptance of climate change as a promising sign in terms of the potential to affect public awareness. He has heard that some environmental organizations are embracing nuclear energy as a part of the energy mix, with the intent of reducing climate change. Transportation of spent fuel to the facilities could be expected to be an issue for some people and groups, similar to the Yucca Mountain experience.

Re INL, he mentioned the PU238 experience and the public outcry about that activity at the site. He believes that the general public is not particularly concerned about a new nuclear activity at the site, but that groups traditionally opposed to nuclear energy will have concerns.

What could help to better inform the public about GNEP?

Extensive outreach about the linkages between research and economic development will be needed, as well as nuclear issues. ISU, with its focus on health and natural sciences, as well as engineering, can be a potential resource for helping people understand the processes. The three presidents from the regional universities may be willing to stand side-by-side to show their support for GNEP.

Feedback on briefing materials:

The materials were helpful; he is already familiar with the program. The term "recycling" may raise questions among people who feel this is actually a reprocessing concept.

Other people who should be engaged:

Greater Yellowstone Coalition

Availability for workshop:

He is interested, but probably can't make that much time, though he will follow the process.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Boise
Interviewers: Pat Serie and Marilyn Whitney
Date: 3-1-2007

Overall reactions to concept of GNEP:

GNEP is a good fit with the emphasis on economic development in the state and the Boise region; there are significant efforts to seek scientific and technically-based companies to develop facilities here. Attitudes in the Boise area especially have shifted in the last 10-15 years; a strong environmental awareness has arisen in parallel with economic development efforts, and the current mindset is likely to be supportive of a program that takes a waste product and tries to make it smaller in volume, safer, and useful to society. It appears to be a way to use existing nuclear materials in a smart way, rather than just storing them and burying them. Reducing long-lived radionuclides, reusing materials, and increasing global nuclear weapons safeguards, should be appealing to the locale, which is strongly committed to international security as evidenced by its reaction to the Iraq war.

The area is growing in size and diversity, and there has been a lot of advancement in how people see initiatives such as GNEP. The community is progressive-minded and environmentally responsible. There is more effort among various groups to work together. In Idaho, water resource groups are no longer opposed to nuclear power. The University's collaborative effort with federal, local, academic, and business groups, through the Idaho Water Center , is a good example of how different entities that work on water issues can come together and make progress.

The University of Idaho is engaged in alternatives fuels research; is equipped to help inform research needs on a global scale that reflect the limitations of an oil-based energy system. Alternative energy sources can supply only a small fraction of energy needs. Nuclear energy, done safely can be inexpensive and a responsible choice as a complement to the other alternatives such as wind, biofuels, etc.

Overall concerns:

She is not significantly concerned about the GNEP at this conceptual stage.

Expected public reactions:

Not aware of significant anti-nuclear sentiment in the Boise area, though familiar with the Snake River Alliance's past efforts. She is not hearing much about it today and does not foresee any organized effort against nuclear. Transportation of spent fuel will raise questions, as it did in Governor Andrus's time; with the right communications, this can be addressed. She commented that we are currently transporting spent fuel safely and successfully and we don't hear opposition to it.

What could help to better inform the public about GNEP?

This will take some efforts, but is achievable.

Feedback on briefing materials:

There were a lot of acronyms, but they were spelled out. The materials are generally good; helpful to define spent fuel up front. She believes a discussion of minimizing spent fuel is very

helpful to address public concern. She had not heard of GNEP previously, but finds the information useful on brief review.

Availability for workshop:

Interested and available; breakfast probably best for many people (7:30).

INTERVIEW SUMMARY

Interviewee: Leading Educator, Southern Idaho
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

He would like more information about what is being proposed.

Overall concerns:

He wonders how long the spent nuclear fuel would be in Idaho and how advanced the technology is. Has the recycling technology that is being proposed been successfully demonstrated? What are the environmental impacts associated with those facilities where it has been demonstrated? How much spent nuclear fuel would come into Idaho and how long would it remain here? What would be the environmental impacts on water, air, and human health. He wonders if this is a "backdoor" scheme to establish long-term storage of spent nuclear fuel in Idaho in the event that Yucca Mountain never opens. People in Idaho are increasingly suspicious and distrustful of government. Idaho is relatively isolated and lacks political clout. If DOE is saying that a lot of research will be needed to make this work, that will raise concerns. If this is an experiment, how long will it last? If we aren't certain it will work, we should not be moving ahead with it.

Worldwide fossil fuel consumption is increasing and at an increasing rate. Nuclear is being used all around the world. The economic benefit is not compelling if it can not be demonstrated to be protective of human health and the environment.

He understands that the community of Idaho Falls is pretty supportive. They are perhaps somewhat better educated and certainly more aware of nuclear.

If people are left with the perception that the true intent of this initiative is to circumvent the Settlement Agreement, then people will oppose it.

Expected public reactions:

The reactions will be bi-modal. Some will be very supportive because of the economic development opportunities associated with GNEP and will appreciate the potential contribution to our energy problems. Others will be opposed as they don't want any more spent nuclear fuel in the state of Idaho.

What could help better inform the public about GNEP:

Provide more information. People will need to know the schedule for when the spent nuclear fuel will leave Idaho. If this is happening in other parts of the world, tell the story. Potential economic benefit to the state is not a good enough reason for most people to support this. Provide examples from other places and report the environmental record of that work.

Feedback on briefing materials:

They were fine, but he had a lot of questions that were not answered by the materials provided so far. The information needs to emphasize that this is not a storage facility. How many trainloads will come in and what is the schedule for those materials to leave the state. What is the status of Yucca Mountain and what is the contingency plan if it is never opened?

Availability for workshop:

He might be able to attend. Please let him know when it will be.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-2-2007

Overall reactions to concept of GNEP:

Mixed reaction to GNEP. He has seen many initiatives similar to GNEP come through DOE and has watched scientists and engineers put significant effort into research and development and then watched these initiatives die. That said, he is a proponent of nuclear power and thinks GNEP is the future, especially in light of the problems with the slow pace of developing and opening a nuclear waste repository. In consideration of our alternatives, he believes that our CO_2 legacy is much greater than our nuclear legacy.

Overall concerns:

Feels that GNEP's UREX+ may not be completely proliferation resistant (Plutonium is combined with Neptunium); it will be better than PUREX (note: pyro-processing is more proliferation resistant than PUREX because Lanthanides are also co-mingled with Neptunium and Plutonium). While he thinks it is a good idea to reduce high level waste and harness the energy, this will remain an issue.

Keeping track of materials/monitoring. IAEA monitoring will be an issue – how does GNEP plan to account for all the materials throughout the recycling chain. There could also be safety concerns with the materials given the solutions that they will be resting in. Accounting will be a challenge. This could be a bit of a national security issue.

The amount of waste that will be created is substantial, although the toxicity (radioactivity with shorter half lives) will be lessened.

Exposure to workers – during the recycling process some of the waste in interim steps will be screaming hot and managing worker exposure will be critical.

Ultimate decommissioning of facilities – what happens to them in the end? These costs could be huge.

Costs. GNEP facilities would be very costly (robots, hot cells, etc.). Funding levels for GNEP have traditionally been too low.

Feels that first we need to build more nuclear power plants prior to getting into the reprocessing/recycling/polishing business. Currently, GNEP does not know how to make fuel from the nuclear fuel recycling center for the advanced recycling reactor. It makes more sense to build more nuclear power plants, and then the advanced fuel cycle research facility prior to building the other two facilities.

Regulatory hurdles -- GNEP will also need to convince the NRC that this can be done safely

He does feel that if this is going to be done anywhere, INL is as good as any site (actually better). Expertise is high at INL, but INL may run into problems with the potential for earthquakes, the location of the aquifer, and the issue of acquiring water rights.

Expected public reactions:

Some of the potential public issues could be:

Waste. As mentioned, GNEP waste products would be less toxic, but the volume is of concern. There would be much less waste with GNEP than with straight disposal of spent nuclear fuel (on the order of 1:17).

Tracking by-products as mentioned above and how to monitor this with non-destructive assay techniques.

Public resistance to give this technology to other countries (particularly if they could turn around and use it [as a dirty bomb] on Americans). Our friends today are not necessarily our friends tomorrow.

What could help to better inform the public about GNEP?

Briefing materials were unbiased and informative from a generalist perspective.

Feedback on briefing materials:

Again, he did not know whether we were pro/anti GNEP from reading the materials – he perceived neutrality in the briefing materials.

Availability for workshop:

Lunch best on April 5th.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Southern Idaho
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-5-2007

Overall reactions to concept of GNEP:

Mixed.

Overall concerns:

Governors should not cut deals that will leave future governors in a difficult position. He was referencing the deal former Governors Cecil Andrus started and Phil Batt finalized with the Department of Energy and U.S. Navy over spent fuel.

The information materials imply that it might not be possible to proceed with GNEP without violating the Settlement Agreement. He said that it should not require the threat of court action to get the federal government to live up to its commitments. The strategy for ongoing compliance with those commitments should be "airtight from Day 1." The materials should not give the impression that "we'll cross that bridge when we come to it." Idahoans can and will accept that they may store highly radioactive materials for awhile, but they will not be happy about it if they later realize that we are getting stuck with something that no one else wants. Former governor Andrus cut a good deal for the state. Former governor Batt wasn't quite as protective. Renegotiation of that agreement will not be good for the State of Idaho.

Expected public reactions:

Some will support, some will oppose, and some will be in the center. People in the Magic Valley don't pay a lot of attention to the INL. The folks up in the Wood River Valley pay attention, and they are opposed to INL. That position hurts in fundraising efforts up in that area if there is a perception that the school has a relationship with the site. Interestingly, it doesn't hurt student recruitment efforts. Some of the major players up there are environmentally oriented.

Recent years have brought increases of 70% in the region's need for baseline power. The standard energy sources (hydro and coal) cannot keep up with that growth and are already pretty well tapped. Nuclear is an option that really has not yet been explored. Those that oppose new power production don't realize that they are hurting this community's efforts at economic development. Conservation is good, who can oppose it? But it won't provide enough additional capacity and no one wants to have to consider who should go without power if there isn't enough to go around. Everyone sees power consumption as a personal issue, but the policy discussions can't move forward if everyone is dealing with it on that level. The State of Arizona has pricing policies that offer incentives to people using major appliances during times of the day other than those at peak demand. That cannot be done in Idaho right now and it is unlikely that the regulations would change to allow that. If we must have additional power, it will have to be coal or nuclear. Magic Valley residents just shut down a coal-fired power plant. It remains to be seen whether that means they would support nuclear.

If you can prove that we need baseline power, then the public may accept this proposal. The power produced by the generation facility will have to be for Idaho, however. If it is perceived

that the power will go to consumers somewhere else, they will not accept it. It's our water and our backyard, we should get the power.

It won't be possible to get people who oppose nuclear to support this initiative. Many of them will say they believe that conservation will reduce the need for power. But this philosophy will limit economic development. Some environmentalists that opposed the coal-fired power plant may become proponents of this proposal.

As for nuclear issues, those over 40 years old remember Three Mile Island and those under 40 do not. For GNEP to move forward, it will have to be demonstrated why what happened at Three Mile Island is not relevant. The focus will need to be on the technological advances that have occurred since then and our need to address our current/future energy needs.

Fossil fuels are of limited supply and nuclear energy is the only energy source that is perpetual. Safety and waste disposal are "the issues." For the GNEP proposal to be acceptable to the public, it should demonstrate how safety and waste disposal will be addressed. People over 40 see nuclear as a safety issue, people under 40 see nuclear as a waste disposal issue. One of the challenges in dealing with people under 40 is that they don't know enough about nuclear waste to understand why it can't just go in a landfill. They don't know what a half-life is and they don't know that we will need lots of repositories.

If Yucca Mountain were to open, it would help a lot.

What could help better inform the public about GNEP:

Don't avoid answering questions. At the public hearing for Sempra, the public was supposed to write their questions on cards and turn them in. Not all questions were answered, however, and that left people feeling like they were being avoided.

Involve the county commissioners. They are accountable to the public. They need to be informed and engaged.

Feedback on briefing materials:

Design the information materials to communicate neutrality. The information should be objective. People who feel like they understand the issues will be more favorable. But if people feel they have heard only one side of the story, they may not be supportive.

The materials should make the case as to why INL could be trusted with this new mission. Remind people that the cleanup is proceeding as committed. Demonstrate what has been learned from the past. Demonstrate that you understand the public concerns and how those concerns will be addressed. People care about waste management and about safety. Be up front about what might go wrong.

Availability for workshop:

He said April 4th is not a good day, but the evening would be best.

INTERVIEW SUMMARY

Interviewee: Leading Educator, Twin Falls
Interviewer: Emily Boerner
Date: 3-26-2007

Overall reactions to concept of GNEP:

Very excited that we are part of this process. Thinks that INL would be a great location for GNEP given its 60 years of history. She is a huge proponent of this project in Idaho. She would like to know more about RDA's role in GNEP; is it so Idaho can better position itself in the state? Who is in charge and what is in place to make us more competitive – how do we position ourselves as best site? Is that RDA's role?

Overall concerns:

Few concerns about safety and environmental issues – she has trust in DOE's ability to develop GNEP correctly. She is more concerned with public reaction, and DOE's efforts to communicate effectively with citizenry in Idaho. Every decision comes with risk, and DOE needs to do a better job on not only explaining that risk, but also explaining the benefits.

Expected public reactions:

In her region, safety and environmental concerns will be paramount. This is particularly important in relation to the Snake River Plain Aquifer.

What could help to better inform the public about GNEP?

She feels that the public is misinformed and does not understand lab operations/activities. There is a need to get the public more comfortable and excited about the lab's mission, especially in relation to GNEP. DOE should try to feed on the pride that the lab is in Idaho.

She feels that the opposition to GNEP will appear to be knowledgeable, especially if DOE does not answer their questions in an effective way. The champion of GNEP in Idaho needs to spend more time educating the public on the positive side of what the lab does… if they don't do this, GNEP in Idaho could fail.

She used the example of the opposition to the new high-tech coal fire powered plant. Although the plants in the east have bad reputations, the new plants are much improved. This was not well understood. The misinformation and the passion of the opposition ran the show.

In a nutshell, she thinks there is a need to campaign, explain the risk, and the potential gain. Also, make the effort to understand the opposition's literature.

Feedback on briefing materials:

The briefing materials need to blend the facts with a personal/emotional connection to GNEP. Why should the Idaho, or individuals in Idaho, care about locating GNEP in the state? She thinks that the majority of facts are over the public's head, and that there needs to be an effort to engage the audience so they can personally see the benefits. She feels this was the Achilles heel in relation to the Pu238 issues at the site – DOE focused on the dry facts instead of explaining that these batteries will get us to Venus and back.

Availability for workshop:

She plans to be there.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Pocatello
Interviewers: Pat Serie and Wendy Green Lowe
Date: 2-27-2007

Overall reactions to concept of GNEP:

Personally in favor of nuclear energy, if we can do things safely and control or eliminate nuclear waste. It is clean energy, and that is a good thing. People in the county generally understand nuclear issues; the site has operated for years and years with only one accident of which he is aware. The county is interested in good-paying, lasting jobs being created. Labor capacity will be there if the facilities come here; it might need to gear up a bit.

Overall concerns:

The lab could gain considerable value from establishing and maintaining a presence in Pocatello.

Expected public reactions:

There will be a mixed reaction to GNEP in Pocatello; about 50/50. People are generally positive, but do get concerned about perceived risks (see FMC/Simplot plants and their emissions issues). People will be concerned about potential pollution of the aquifer; disposal of waste over the aquifer and earlier site injection wells caused great concern. "Smoke stack issues" (air emissions) will also be of concern.

There will be folks who react positively. Folks understand nuclear and will appreciate the possibility of new, good paying, long-term jobs and a sustainable mission for the site.

What could help to better inform the public about GNEP?

People need a great deal of information to get educated about the project; focus on newspapers and television. Let the public know what is happening, and when, and they are more likely to be comfortable with such a project. Information materials should focus on the things that people might be concerned about, like impacts on the aquifer.

Feedback on briefing materials:

He will review the fact sheets and give us feedback.

Availability for workshop:

He is interested and available; schedule is open.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Pocatello
Interviewers: Pat Serie and Wendy Green Lowe
Date: 2-27-2007

Overall reactions to concept of GNEP:

Supports the expanded mission of the lab. Global warming is an issue, and revisiting nuclear makes some sense. They are working with local medical facilities to use nuclear-based technologies that relate to site activities, and see that as a good possibility for Bannock County medical care. He was opposed to weapons production activities at the site in the past.

Overall concerns:

Storing and disposing of remaining nuclear waste is a definite issue. He believes that organizations that generate waste should handle it at the source or nearby; he is uncomfortable with transporting waste long distances from where it is generated. His primary concern is transportation of waste. At the facilities, highly trained people work in one place and he has more confidence in their abilities to avoid accidents. He knows people who work at INL and that contributes to his confidence in the site. He believes that nuclear materials are more vulnerable during transport; waste is handled by less-trained people and the possibility of accidents goes up. He is highly confident in the personnel at the sites, though mistakes are always possible. His preference would be for the research facility rather than the other two facilities, to avoid transporting waste to the site. Research and development on safe handling is a preferable activity, though he remains open on the subject of the other facilities; he will need more time and information.

Expected public reactions:

People will have legitimate concerns about any waste that might remain in the state after the processes. Public concern about transportation is also likely, though education about protections should help.

Significant public concern about pollution of the aquifer exists in Twin Falls, and others share the concern. People are not knowledgeable about the ongoing cleanup program at the site; project can expect guarded reactions until people learn more. He is in favor of taking advantage of site expertise to address other missions, such as medical technologies.

People are busy and don't understand a lot about what goes on at the site. They will need more information to reduce their concerns. They don't know a lot about the cleanup program, but they understand that it is necessary because mistakes were made 50 years ago. Their reaction will be guarded, despite the knowledge that the site is the largest employer in the state. The energy production aspect will be attractive, although some are opposed to nuclear energy. Some will probably like the idea that the site could have a role in contributing to solutions by finding a better way to manage spent nuclear fuel while meeting increasing energy needs and reducing global warming. Clean energy will be a compelling message; people are finally getting more aware of climate change.

He predicted that there will be keen interest in Pocatello in seeing some of the new jobs located in Pocatello. Perhaps some support facilities could be located in Pocatello. Although a good number of site workers from INL live in Pocatello, the community has not enjoyed its share of

economic benefits from the site. Spreading that economic benefit around would broaden the base of political support for the site.

What could help to better inform the public about GNEP?

If INL had a strong presence in the area, and senior people integrated into the Pocatello community and supported community organizations, residents would naturally learn more about site operations and gain confidence. DOE investment in Bannock County would be welcome; locating staff, offices, etc. This would make for a more diverse Pocatello, and increase confidence in DOE and the site.

There is an on-going need to provide opportunities for public education and information.

For the project specifically, he suggests: purchased media, newspaper editorial boards, the city community access cable channel (11,12), contact with the city's four neighborhood groups, supporting community projects, and the local presence mentioned above.

Feedback on briefing materials:

He will review the fact sheets and give us feedback.

Other people who should be engaged:

Environmental groups in the area include Snake River Alliance, Sierra Club, Greater Yellowstone Coalition, Idaho Rivers United. Cultural groups such as NAACP and Image Idaho de Suste will be interested as well. He mentioned the Biology, Political Science, and Engineering Departments at Idaho State University, organized labor, and the trade unions.

Availability for workshop:

He is interested and available; schedule is open. He thought lunch or later would work better than breakfast.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Southeastern Idaho
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 2-28-2007

Overall reactions to concept of GNEP:

Supportive of the strategy behind GNEP. The idea is good and the opportunity to make a contribution at the global level is attractive. Nuclear is a solution and this proposal would also allow us to get rid of the waste.

Overall concerns:

No concerns. We trust DOE. They have been good neighbors.

Expected public reactions:

The reaction will be positive after they figure out what it is. The folks from Twin Falls and Jackson will oppose it if it sounds like reprocessing and if it will entail storage of spent nuclear fuel. Their objections are based on misinformation. Storage of spent nuclear fuel scares people. People will not support the mission if it violates the Settlement Agreement. And they are afraid of an accident.

When Keep Yellowstone Nuclear Free became involved the last time, the result was a loss of jobs for Idaho Falls. INL is an asset to this community. We are a science-based community and we know how to handle nuclear materials.

As for the Settlement Agreement, there is a perception that it can't be changed. But it was our understanding that the former Governor, James Risch, was willing to talk about it. It can be changed if necessary.

What could help better inform the public about GNEP:

This could cause an information war. The activists' arguments are only "half-founded" in truth. GNEP should respond with good information, as soon as possible, saying this is what it is and this is what it isn't.

Feedback on briefing materials:

The materials are good.

Availability for workshop:

He didn't know what time would work best for people.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Idaho Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 2-28-2007

Overall reactions to concept of GNEP:

Very favorable.

He reported that the City of Idaho Falls had just passed a referendum to invest in a coal-fired power plant that would provide 25 megawatts to the city. The hydro power that had provided for the community energy cannot meet the increasing demand. He said it was strange to go to the voters asking for support for the bond for coal given the community's history – but there is no nuclear option at this point. The city needs to diversify its energy portfolio and needs reliable power.

Overall concerns:

He expressed concern about how rushed this project is feeling right now. He thinks the public needs more information to understand what is going on. He said there was a lot of preliminary information awhile back, then nothing happened for awhile, then everything is hurried up again. Not only is the RDA out talking to people, but DOE is hosting the upcoming public meeting and Energy Solutions is talking to people. It is unclear how each of these processes related to each other. Having two candidate sites so close together is going to create some confusion. He hopes this won't "muddy the water."

He reported that he had talked to Energy Solutions earlier that day. They asked him for his support. He reported that he had said that he is supportive of both options as they will both be good for Idaho Falls, but that he had already thrown his hat into the RDA ring. His allegiance is with the RDA effort.

Expected public reactions:

The local public will be very supportive when the facts are laid out. They know the challenges that we will face in the future and this is a solution. We need stable, reliable power.

The community of Idaho Falls is very proud of its nuclear heritage and very supportive of the site. We are enjoying a new stability in this community as we are in year two of a ten-year contract with BEA. Everything feels very calm and this is the right time to be looking at this. They (DOE and the contractors) have been walking the talk.

What could help better inform the public about GNEP:

Tell the story using concise materials. Provide more in depth materials for those who want to know more – but not everyone wants a lot of technical information.

Feedback on briefing materials:

Keep the information as simple as possible. Focus on the benefits of this effort.

Availability for workshop:

The morning of April 3rd would be good and he will try to attend.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Pocatello
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-1-2007

Overall reactions to concept of GNEP:

He is supportive of GNEP if things keep moving along and the spent nuclear fuel has a clear path back out of Idaho.

Overall concerns:

He had some questions. What potential impacts will there be on air quality? How radioactive will the resulting waste (after recycling) be? How long will the spent nuclear fuel be in Idaho? What do those nations that reprocess (like France) do? Knowing that this is being done in other countries will help ease concerns. Definitive answers and assurances will be necessary for people to be supportive.

Expected public reactions:

The Shoshone-Bannock Tribes will need to be talked with.

The majority of folks will be supportive in Pocatello. People are coming to grips with global warming, and nuclear will be seen as the lesser of two evils with coal. We have an increasing need for power. Alternate fuels are attractive, but most people are coming to the realization that they do not provide a "full solution." INL has a great track record on nuclear issues.

What could help better inform the public about GNEP:

DOE should brag about what's been done. They have a good track record regarding the cleanup program. They understand what it takes to provide stewardship for nuclear materials.

People will need to know how the spent nuclear fuel will come into Idaho. They will need a guarantee that it will eventually go to Yucca, and when. They need to understand that reprocessed fuel will be attractive to terrorists, and how it would be protected. They need to understand the environmental effects of nuclear in comparison with coal.

Consider using community access television (channel 12).

Feedback on briefing materials:

Keep things short and simple.

Availability for workshop:

Yes, he is interested. Lunchtime or after work would work better.

INTERVIEW SUMMARY

Interviewee: Local Elected Official, Twin Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-5-2007

Overall reactions to concept of GNEP:

Guarded.

Overall concerns:

He expressed concerns about transportation, potential impacts on air quality, and threats to the aquifer. He wondered how big the reactor facility will be. He thinks the facilities should be co-located (to minimize transportation risks).

He was particularly concerned about potential risks to the aquifer. He asked questions about whether any liquids would be shipped, if any radioactive materials under GNEP would be water soluble, and how heavy the materials would be (would they be carried by flowing water, or settle out). He wanted an honest explanation of the risks that GNEP would pose to the aquifer as well as what could go wrong. What processes would be used and who would regulate operations?

He said that GNEP would have a positive economic impact.

He wondered who will purchase the power that is produced. How will that power be regulated? Who will benefit from GNEP and who will pay for it? Part of the reason Magic Valley folks opposed the Sempra coal-fired power plant was because it would have been located in Jerome County, but the power would have gone to southern California. In addition, because the power plant was not to be owned by a power company, it would not have been regulated by the Public Utilities Commission. Folks did not like that arrangement. GNEP should be designed to equalize the risks and benefits.

He felt that the facilities should be under federal control (or by a contractor on a federal contract). He wondered whether budget estimates for GNEP include disposal of radioactive materials that would result. The utilities that have generated the spent nuclear fuel should be paying for GNEP – the federal government should not be subsidizing them.

Idaho should have some assurances that we won't get stuck with the spent nuclear fuel. He doesn't see adequate protection for Idaho interests in the materials provided.

Expected public reactions:

He felt that most will be disinterested.

He reported that the anti-nuclear groups will try to stop GNEP because they "want to stop everything that is nuclear." They will bring up air and water quality concerns and ask about HEPA filters.

The interested public will be concerned about the same sorts of things that they are normally concerned about related to INL, including potential air contamination and aquifer contamination. He said he is "pretty well convinced" that there is little threat to the aquifer, but that the public remains concerned about that.

He went on to say that GNEP seems like a logical next step and that it makes sense to avoid having to store the spent nuclear fuel indefinitely. He thinks the "average public" recognizes that

nuclear is a part of the future solution for energy, but that "there will always be people who say there is no way that nuclear can be done safely."

What could help better inform the public about GNEP:

Information materials should answer people's questions.

Feedback on briefing materials:

The materials do not answer all of his questions. How will the spent nuclear fuel be stored? What process will be used for the recycling? How much water will be used and where will that water go once they are done with it? (If the recycled material remains solid, he won't be as concerned.) Will storage pools be needed?

He also thought the materials should provide more information about transportation. Routes and quantities to be transported should be addressed.

Availability for workshop:

He is available for all possible times and interested in attending. He suggested City Council Chambers (the overflow room in that building) and the College of Southern Idaho as potential locations for the workshops.

INTERVIEW SUMMARY

Interviewee: Media Business Leader, Idaho Falls
Interviewers: Gretchen Hund and Teri Ehresman
Date: 2-27-2007

Overall reactions to concept of GNEP:

People who have been through similar experiences to the interviewee with his thyroid cancer don't trust the government and don't trust DOE. The government hasn't always been a great neighbor and the track record speaks for itself. His point was that even if the facts aren't all in, if the public, or at least this segment of the public, has this perception, it is very tough to get a project like GNEP endorsed. Some people are just looking for good jobs that pay well but the other segment can be very vocal.

Interviewee sees the need for nuclear power given energy demands. He's on board and wants to see GNEP be successful. He says that there is likely no better site than INL.

Overall concerns:

He is worried that GNEP won't succeed because of the weight that groups like Keep Yellowstone Nuclear Free and Snake River Alliance can throw around to block the project. Particularly the former has deep resources and has been very effective in the courts. The people associated with these organizations see themselves as receiving nothing positive from the site and want to fight it.

Interviewee believes that DOE has not always played straight and needs to be willing to admit it. Need to really open up the process. DOE needs to admit that it hasn't always operated with full disclosure. Siting GNEP is going to be an uphill battle even with such an open process.

Gov. Phil Batt signed the Settlement Agreement and now DOE wants to redefine what it says. This could be a problem.

If this is really a public/private partnership then negotiation needs to occur to define what is included in the deal and what changes will need to be made to make this acceptable.

We're many years late in R&D in nuclear research and have a lot of catch-up to do.

Expected public reactions:

There will be some segment of the public that will never be convinced that GNEP is a good idea. It's the middle segment where the work needs to occur. The Twin Falls segment of the public gets no benefits from INL. They see themselves as just getting the radioactivity out of their springs.

He's also concerned about changes in the Administration and Congress that will change priorities. It's classic to have one group make certain promises that the next group doesn't meet. The public has a good cause to be skeptical.

Most of the public relies on experts to tell them that they were safe. Most government officials are not seen as trustworthy. He knows certain engineers from the site really believe in what they are doing and he trusts them.

Transportation is a big issue in the state, more than symbolic, given the need to bring waste in and out. Some segments of the public see ID as being a waste dump and even more so if GNEP

is brought here – the waste will come and never leave. Some want a guarantee that this will not be the case.

What could help better inform the public about GNEP?

Need to have someone with integrity and confidence of the community to be a spokesperson. He couldn't think of a good example of someone who could serve as this person. The person has to be seen as someone who has not sold out on issues before – would have to have "street credibility." Congressman Mike Simpson is seen as an independent thinker and is an advocate of GNEP. He's also fought for the wilderness so is seen as balanced.

People want to feel that they are making a difference in addressing greenhouse gas emissions and cutting the tie with the Middle East for oil. He thinks the public didn't necessarily want to vote for bringing in the electricity from the coal-fired plant in Utah but they saw that they had no other choice. This angle needs to be emphasized. Citizens need to feel that they are part of the solution. The community is patriotic but this needs to be real.

It is important for the newspaper(s) to "get it." Questions need to be answered honestly. There is cynicism here.

Feedback on briefing materials:

He found the fact sheets useful and did not see any additional materials being needed.

Other people who should be engaged:

Jackson, Wyoming crowd needs to be engaged.

Availability for workshop:

He thinks that he would be available on April 3.

INTERVIEW SUMMARY

Interviewee: Media Business Leader, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-1-2007

Overall reactions to concept of GNEP:

There is a need to proactively pursue GNEP. There is a need to move forward with nuclear energy, and the reprocessing concept seems to be a logically connected step. Feels that the whole issue of energy can get very political and that we should be focusing instead on practical realities. Such realities might include the problems associated with oil supply from the Middle East, inefficiencies associated with coal burning, and limitations of wind and solar in providing energy on a grander scale. It seems rational to him that nuclear energy be part of the solution. He thinks it would be wise to use natural gas/oil for transportation instead of electricity production. It would also be wise to start focusing on the conservation end to reduce demand.

Overall concerns:

"The environmental implications of not building these facilities are greater than the risks of building them". Safety issues associated with the aquifer and disposal of the by-products are his primary concerns. Even if risks to the aquifer are only perceptions, they will drive the process and must be addressed. Other than that, few concerns given that he has faith in today's technology.

Expected public reactions:

Much of the public does not understand the complexities of nuclear energy production.

What could help to better inform the public about GNEP?

There must be an effort to educate the public of the benefits of GNEP. Focus on marketing the benefits of the program: cleaner air, greater national security, jobs, and gasoline prices. Pictures tell a thousand words, so create visual aids for people. Be as open and forthright with information as possible.

Feedback on briefing materials:

Well put together.

Other people who should be engaged:

Suggested the Idaho Statesman.

Availability for workshop:

Available on April 5th except for the morning.

INTERVIEW SUMMARY

Interviewee: Media Business Leader, Twin Falls
Interviewers: Teri Ehresman and Wendy Green Lowe
Date: 3-5-2007

Overall reactions to concept of GNEP:

Mixed, but largely supportive.

Overall concerns:

He said he didn't have any concerns. He said "we obviously need to do something and nuclear will be part of the solution. That will not be popular, however." He thinks that global warming is occurring, although there may be disagreements about what is causing it. There are carbon dioxide emissions associated with almost every other energy source. "If we expect to have any impact on global warming, we need to expect to make a major change in energy policy."

Expected public reactions:

Locally, the anti-nuclear movement is small, but vocal. Their story stays the same. It is unlikely that they will change anybody's minds at this point.

The vast majority of people pay no attention to the site, however.

The site has done itself no favors by allowing the contamination of the aquifer. It's a sole source aquifer and it's very important to Idaho's economy. This caused tremendous distrust of DOE, the government, and the site. We can't change history, and that history will effect how people perceive GNEP.

He has never been impressed with the site's efforts at community relations. Many strategies appear to be poorly thought out or naïve. By contrast, the anti-nuclear activists present their case coherently and clearly. The site lets them tell the story by failing to provide a "balancing opportunity." The activists may be fear-mongers and they get a fair distance of limited real information, but they reduce DOE's credibility considerably. The site needs to do a better job of telling its own story.

It may be possible to get a fairly positive reaction to this initiative from the general public. It should be presented as a solution to problems that people can understand. That will require presentation of the "whole story." It might be a good idea to present the experience of the Sempra coal-fired power plant as the backdrop. People understood that the problems that would have been caused by that facility were real, but they also understood the need for more power.

GNEP could be presented as a solution. It would provide power without contributing to climate change. It provides a way to deal with waste (spent nuclear fuel) that is accumulating all over the county. There is no where for that waste to go. Recycling is a solution that we can all understand. It would reduce the volume of waste that would require disposal.

People up in the Wood River Valley are mostly anti-nuclear. They are concerned about the aquifer.

The site probably could have kept on operating the injection wells for years given the rate of migration of contamination. The contamination hasn't even left the site boundary yet. Folks in the Magic Valley area might not have gotten excited until the contamination was detected.

Once "potential" impacts have been identified, then you need to be ready to answer questions.

What could help better inform the public about GNEP:

Tell the story in an honest way. Be aware that people have an innate fear of nuclear at the gut level.

Information that helps people understand this proposal would include the fact that many countries have been relying safely on nuclear for many years. They have been recycling their fuel for many years. Most Americans don't know that.

Use the media more to help get information out – television, radio, and newspapers. Reduce the message to sound bites. Many people base their opinions on sound bites.

Consider employing a marketing firm. Identify key messages addressing serious problems (increasing energy needs and global warming, for example) and present GNEP as a solution. It would also enhance international security.

It may take years to sell this effort.

Feedback on briefing materials:

People will need more information about what fuel reprocessing is. The materials don't really make clear that this initiative would commit to restarting reprocessing. The policy shift really hasn't occurred yet.

This needs to be framed as being "bigger than politics."

Availability for workshop:

He is available. Later in the day (after noon) would be better.

INTERVIEW SUMMARY

Interviewee: State Government Official, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-1-2007

Overall reactions to concept of GNEP:

While in the Legislature, learned that nuclear power is more stable and environmentally sound than many of its alternatives. Thinks that the environmental community is beginning to make this same realization. Personally feels that the U.S. must go in the direction of nuclear energy. The Settlement Agreement will have to be negotiated.

Overall concerns:

Primarily concerned with waste and protection of the groundwater/aquifer.

Expected public reactions:

Thinks that public perception of the lab has changed in recent years, and that Idahoans will mostly support the GNEP effort. There has been a history, however, that citizens in Twin Falls feel Idaho Falls gets the jobs while they get the contamination of the their aquifer.

What could help to better inform the public about GNEP?

Seize the opportunity to educate the media and the press.

Feedback on briefing materials:

Did not have a chance to review.

Availability for workshop:

Available on April 5th – open all day.

INTERVIEW SUMMARY

Interviewee: State Government Official, Boise
Interviewers: Gretchen Hund and Emily Boerner
Date: 3-2-2007

Overall reactions to concept of GNEP:

At a recent annual water users convention attended by 650 people, he made an observation: no petroleum is pumped in Idaho, no coal is burned in Idaho, but geothermal power plants, biomass, ethanol, and wind power are being actively pursued. Idaho is on the forefront of supporting a suite of alternative energy technologies, and it is necessary to add nuclear energy to the mix. He has faith in nuclear technology and is very much in favor of the nuclear renaissance.

Overall concerns:

Water quantity – how much water will the demonstration facilities associated with GNEP require and how to they plan to obtain water rights? Will they plan to tap the Snake River aquifer? Also need to consider water quality issues (IDEQ's concern). There needs to be a plan in place and water conservation needs to be part of the plan. Need to recycle as much of the water as possible in the process.

Expected public reactions:

As a citizen, he is more concerned with buying oil from OPEC nations than the risks of nuclear power. Is in favor of recycling/reprocessing nuclear materials. Public will want to know how much water will be required. Transportation is not critical to the public.

What could help to better inform the public about GNEP?

Feels that the public will be interested in specifics, such as how much water will be needed? Where and what will the plants look like and where will they be located?

Feedback on briefing materials:

Did not have a chance to review the materials in detail but they look great.

Availability for workshop:

Available on April 5th – evening is best.

INTERVIEW SUMMARY

Interviewee: State Government Official, Retired, Idaho Falls
Interviewers: Wendy Green Lowe
Date: 4-12-2007

Overall reactions to concept of GNEP:

He is very supportive. He thinks that Idaho National Laboratory has a long history of nuclear missions, Idaho Falls has a good relationship with the Department of Energy, and that INL is a logical site for GNEP.

In addition, he thinks the timing is very good for GNEP. Given concerns for increasing energy demands, concerns about global climate change, recognition that all energy sources have problems but nuclear is comparatively clean (particularly because it does not contribute to greenhouse gases), and the fact that most people don't remember Three Mile Island and Chernobyl anymore, the time may be ripe. He reviewed the problems associated with other energy sources and observed that nuclear compares favorably in that light.

He suggested that the biggest problem the nuclear industry faces is the waste disposal issue. He observed that other nations have found better ways to deal with their waste than the US.

Overall concerns:

He has no concerns based on the information provided.

I asked him about water supply concerns. He said that he is not concerned about the potential for aquifer contamination. The site has demonstrated over the last 50 years the ability to avoid contaminating the aquifer.

Similarly, he is not concerned about water rights. INL has a reserve water right, which is protected by federal law. A reserve water right is a water right that is associated with the land withdrawal that created a reservation (based on the 1908 Winters court case on the Milk River in Montana. This case arose as the result of a water rights dispute between irrigators on the Milk River and the Native American's living on an Indian reservation. In the Snake River Basin Adjudication, INL was decreed a federal reserved water right and consequently may have more dependable water resources than other options being considered by DOE.

Expected public reactions:

He expects environmental groups, including the Snake River Alliance and Keep Yellowstone Nuclear Free, will express their opposition to any new nuclear facilities that might be located in the Arco desert. He said, "There is money in chaos. It has been my observation over the years that those whose message is fear and doom generally benefit financially from that message. It works because ignorance is easily exploited." He said these groups that capitalize on fear have learned how to skew data in a way that makes it appear that they represent a public consensus. The magnitude and extent of opposition to locating GNEP here will largely depend upon the funding available to fund those who feed on chaos.

In spite of any opposition that may be expressed, he believes that there will be overwhelming public support for the project. He noted that INL has always been part of this community. Consequently a large percentage of the people in this community have had direct or indirect financial ties to INL. It appears the level of support depends on where they live in the state and

how much personal knowledge and experience they have had in the nuclear industry. Eastern Idahoans are more aware of nuclear and therefore are less concerned.

He observed that it is unfortunate that the nuclear industry was started with a bomb (Hiroshima/Nagasaki), and has adopted scary terminology like "going critical" or "scram a reactor"), and has the baggage associated with radiation's link to cancer. "Nuclear fall-out, nuclear waste, and the association between radiation and cancer and genetic defects are always at least a subliminal public concern that must be offset by an overarching confidence in the people and systems that make the potential risks acceptable."

He added that the nuclear industry has not been helped by the fact that the Nuclear Regulatory Commission "makes up the rules as it goes." It appears that NRC's licensing procedures have never been based on a consistent template.

What could help better inform the public about GNEP?

A clear response to "FAQ's" that will answer the publics legitimate safety concerns will go a long way in gaining public support. "Public ignorance is a given, public fear must be addressed". It is possible to address both with well designed information/educational materials. However, the folks that profit from fear do not want to be educated and should not be expected to go away even if objective scientific information is made available.

Feedback on briefing materials:

The material provides a useful basic introduction to the philosophy behind GNEP and probably contains much of the information that should be made available to the general public as this process progresses

INTERVIEW SUMMARY

Interviewee: State Representative
Interviewer: Marilyn Whitney
Date: 3-14-2007

Overall reactions to concept of GNEP:

She visited INL about the time that GNEP was first being discussed so she was aware of it and more amenable to the concept.

The Ketchum-Sun Valley community is changing and is becoming more moderate. A recent analysis of votes in the area showed a move in that direction. However, there are many environmentalists in the area including the President of the Snake River Alliance.

We can't have it both ways – security and nuclear waste stored all around the world.

Having world-class research and researchers (Ph.D.'s) in Idaho would benefit the Idaho Falls area and benefit education. It would provide stronger advocates for education in the state.

It's important to talk about the cleanup project and the progress being made.

Overall concerns:

She voted this week in favor of Senate Joint Memorial 107, the Idaho Legislature's statement of support for GNEP and for the site evaluation process of the two Idaho locations. She noted that she has not gotten any feedback from her constituents in Blaine County.

Bringing additional spent fuel into the state and the status of the settlement agreement will be concerns. It's important to tell the public where we were with the cleanup, how much progress has been made, and what the timeline is moving forward.

People in the Ketchum-Sun Valley area are concerned about their proximity to the site and potential for impact from the site's operations.

Expected public reactions:

Those who have been anti-nuclear will be against GNEP. They will use all the old arguments to argue against GNEP. She noted that former Snake River Alliance director Gary Richardson testified in the House Energy, Environment, and Technology Committee against GNEP but did say several times that nuclear energy wasn't bad.

Concerns over global warming may mitigate concerns over nuclear.

What could help to better inform the public about GNEP?

She suggested making the connection between what we knew in the 1950s and what we know today about nuclear energy, spent fuel, etc. The technology has advanced and this is the next generation of nuclear energy.

Use retirees (both from INL and ISU) in the Ketchum-Sun Valley area to advocate and educate the public. It's important to have more presence in the community.

Focus on the potential new economic impacts GNEP would have on the state. INL should be the "jewel" of the state not the "slug." Need to brag about the positives and not be on the defensive about the negatives.

Acknowledge the world's mistakes with nuclear energy in the past, but point to the progress that has been made and how technology has changed.

Bring University Place and CAES into the discussion and present the "whole picture." Emphasize research. Also, talk about spinoffs that occur through research and development and how that benefits the economy.

RDA could have a presence at fairs and festivals around the state to be more visible and make contact with the general public. Have a booth with basic information and someone to answer questions. Those interested could sign up to receive email updates on GNEP.

Feedback on briefing materials:

The letter from Tim Frazier and the RDA's Q&A were better than the 4-page fold-out piece. They were easier to follow, more specific and better organized.

Recycling is better terminology than reprocessing.

The more specific the materials are the better. Include definitions.

Other people who should be engaged:

Bring opinion leaders in the community together for an informal discussion about GNEP. This could include elected officials, business leaders, and others. Get materials to the group ahead of time for review. It would be helpful to have someone from the corporate world to participate and answer questions. It would be a good idea to hold a separate meeting with area media as well. She offered to help facilitate meetings. Also, extend an invitation to the site to those interested.

Availability for workshop:

Not available for the April 5 workshop.

INTERVIEW SUMMARY

Interviewee: Tribal Government Leaders
Interviewers: Wendy Green Lowe (accompanied by Bob Pence, DOE-ID)
Date: 4-18-2007

Overall reactions to concept of GNEP:

The Tribal leadership and employees had many questions about what is being proposed for GNEP:

1) How would GNEP stop the spread of nuclear weapons?
2) What gives the US the right to dictate which nations should have nuclear weapons? They are sovereign nations and we should not presume that we have the right to dictate who should have weapons.
3) Where would the waste products go? Will they have to stay here if we cannot find another place to send them to?
4) The Tribes need money and programs. Our programs face constant challenges and budget cuts. How would we benefit from GNEP? If the spent nuclear fuel would cross Tribal lands to get to the site and then products that are produced would cross Tribal lands when leaving, what benefit would the Tribes see from allowing the materials to cross our lands?
5) What impacts would GNEP have on the Tribes' treaty rights? What impacts would GNEP have on the environment and ecosystem? Jobs and economic impacts are not the only things that should be considered.
6) How much water will GNEP require? Could the water be used again? Is there enough water?
7) How much waste would result? What sort of waste products would be produced? What would the disposition plans be for that waste? Would the new waste affect the site's ability to safely and effectively deal with the other waste products under its responsibility?
8) What sort of emergency response capacity will we need to have to allow shipments to pass through our reservation without threat to our people?
9) We are concerned about the potential accumulation of waste on the INL. The Settlement Agreement was supposed to be a commitment from DOE to get the waste out of Idaho. Why is a proposal being considered that would look at bringing more waste into Idaho.
10) We understand that our brothers and sisters who live near Yucca Mountain don't want the repository to open. It is not right that Yucca Mountain is the only option that is being considered. If it never opens, DOE will not be able to keep its promises to get the waste out of Idaho. We should not be so reliant on just one option.
11) We understand that the plan is to bring a large quantity of spent nuclear fuel in for the recycling facility to have an adequate inventory to work with. What happens if the recycling facility shuts down? What would happen in a suspended situation? If the recycling center fails after all that spent nuclear fuel has been shipped here, then we will be stuck with it.
12) Accidents happen. Mount Borah had a volcanic eruption not too long ago. What are DOE's plans for dealing with an accident? How can we avoid jeopardy to the Tribes if an

accident occurs? There was an accident at the reprocessor in England which resulted in leaks. What will happen to us and our land if that sort of accident happens here?

13) It sounds like the Tribes have once again been left out of the planning and a decision has already been made. I would like to see a bond put in place to protect us if things don't go as they have been planned. If the government is not willing to issue a bond, it will appear that this effort is not in good faith.

14) The Regional Development Alliance did not want the Tribes to join. We participated in the Community Reuse Organization, but RDA didn't want us to belong.

15) How would GNEP be handled under the Settlement Agreement? Would it have to be renegotiated? When will the decision be made where to located GNEP? Before or after the Settlement Agreement is re-negotiated?

16) What is DOE's plan for long-term stewardship of the materials that would result from GNEP? What about the land where GNEP occurred? How would GNEP affect INL's ability to manage the other materials that INL is already responsible for?

17) How will safety be assured for the shipments that come in and out? What hazards would the shipments entail. How would the Tribes be notified if there was an accident?

18) What will be done with the spent nuclear fuel at the INL if Yucca Mountain never opens?

19) What is the schedule for shipments to the site and what is the schedule for materials that would leave the site? Where would materials that leave the site go? What are the contingency plans if they cannot go where intended?

20) If GNEP is located at Atomic City: Where would the waste products go if Yucca Mountain doesn't open? Would the contract between DOE and the private company say that the waste products would go to INL?

21) Will Yucca Mountain accept the wastes that will be produced? What if that waste is coming from a private facility (if GNEP is at Atomic City)? Would Yucca Mountain accept all resulting wastes, regardless of where they originated from (foreign research reactors)?

22) If GNEP is located at Atomic City, how will site security be handled (on private land)? What about later, once GNEP is done and shut down? Who will be responsible for long-term stewardship of the land afterwards?

23) Will any Tribal people be employed by GNEP? How will the new employees be trained?

24) What technologies will be employed by GNEP? Are those good and proven technologies? Are the plans really feasible?

25) If this is a global initiative and France and the United Kingdom already have the capability to do this, why can't the spent nuclear fuel go to France or England?

Overall concerns:

The word "nuclear" is scary to the Tribal members. We have an automatic reaction that is fearful.

The Tribes' positions on issues related to the site have not changed over the years. It is frustrating that we keep having to explain ourselves over and over.

This is our home. We have no where else to go. We don't want to see our home harmed. We have already told DOE how we feel about this and our positions have not changed. We will

always object to having more nuclear waste brought in through our land. We have always lived here. Because we will still be here once everyone else has moved away, we stand to be the biggest losers.

We understand that the site is located here and we understand our role.

It is frustrating to hear about new proposals that are being considered because of their potentially positive economic impacts because others do not seem to be concerned about possible jeopardy to the land.

It might be better for the Tribes if GNEP were on federal land than on private ground.

The Tribes might need to set up a roadblock on the transportation routes that cross our reservation again to remind DOE of our sovereignty.

Regional
Development Alliance, Inc.

East Idaho's Partner in Growth

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